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Can you Work with Me? Using A Qualitative Meta Analytic Review to Understand the Effects of Culture on the Formation of Swift Trust within Global Virtual Teams

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14. ABSTRACT In this study, our aim is to find out what has been understood thus far in the IS field in regard to the formation of swift trust within Global Virtual Teams (GVTs) through a cultural lens. We performed a qualitative meta-analysis by reviewing ?A? ranked IS journals to obtain a broad and in-depth understanding of the effects of culture on the formation of swift trust in GVTs. We sampled almost 3239 documents spanning fifteen (15) years, from 1995-2010 in seven (N=7) top IS journals. The coders read through all the articles (N=3239) systematically and manually, and only 55 useable articles were found which matched two or three of the codes (i.e. GVTs, virtual teams, trust, swift trust, and culture). In the 15-year period, we found a startling result: less than 2% of articles published in the selected top IS journals have discussed this crucial topic. Hence, many more studies are warranted in order for it to be fully investigated by IS scholars. We present the findings based on the four themes of: GVTs vs. virtual teams, GVT and trust, GVT and culture, and GVT and culture and swift trust.					
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Can you Work with Me? Using A Qualitative Meta Analytic Review to Understand the Effects of Culture on the Formation of Swift Trust within Global Virtual Teams

Abstract. The study of global virtual teams (GVTs) is important in the IS field because GVT employ a work structure that is heavily dependent on information communication technology. Besides the use of technology, GVTs are composed of people from different cultural backgrounds which pose challenges not only in working virtually, but equally in handling cultural complexities. In the IS field, this lack of cultural studies on GVTs has been clearly noted (Jarvenpaa, 2005; Massey, Hung, Montoya-Weiss & Ramesh, 2001; Shachaf, 2008; Qureshi & Zigurs, 2001) but we have yet to understand to what extent it is insufficient. In this study, our aim is to find out what has been understood thus far in the IS field in regard to the formation of swift trust within GVTs through a cultural lens. We performed a qualitative meta-analysis by reviewing 'A' ranked IS journals to obtain a broad and in-depth understanding of the effects of culture on the formation of swift trust in GVTs. We sampled almost 3239 documents spanning fifteen (15) years, from 1995-2010 in seven (N=7) top IS journals. The coders read through all the articles (N=3239) systematically and manually, and only 55 useable articles were found which matched two or three of the codes (i.e. GVTs, virtual teams, trust, swift trust, and culture). In the 15-year period, we found a startling result: less than 2% of articles published in the selected top IS journals have discussed this crucial topic. Hence, many more studies are warranted in order for it to be fully investigated by IS scholars. We present the findings based on the four themes of: GVTs vs. virtual teams, GVT and trust, GVT and culture, and GVT and culture and swift trust.

1.0 Introduction

Multinational corporations (MNCs) frequently need to establish cross-border collaboration by the use of global virtual teams (GVTs). Organizations realize that a virtual collaboration structure can reduce operating expenses for executive travel, expatriate training, failure of assignments due to culture shock, and many more. At the same time, organizations can increase flexibility, mobility and virtual collaboration among members by creating synergistic values from their competencies without barriers of geographical distance, time, and space (Shachaf, 2008). In years past, team members might have had the luxury of taking their time to develop a trusting relationship between members, learn about each other's behaviors, and build historical shared work experiences. Now, MNCs need to develop multicultural competencies that can facilitate the rapid development of trusting behaviors among GVTs (Munkvold & Zigurs, 2007).

MNCs also need to ensure that their employees are equipped with cross-cultural training in order to effectively build swift trust. Swift trust is a trust that is developed over a short period of time (Jarvenpaa, 1999). MNCs need to realize that without building a trusting relationship between and within team members in a distributed work environment, members will be unable to contribute and perform at their best within a short period of time; this is especially critical for complex and temporal-based projects. The virtual trust built between members enables them to collaborate effectively and efficiently in order to achieve the goals of the organization.

Building virtual trust itself is difficult; even more so is developing swift trust in a short time frame and with strangers of diverse cultural backgrounds. The barriers are deeply-rooted in a person's cultural background (Araujo & Chidambaran, 2008; Branzei, Vertinsky & Camp, 2007; Fukuyama, 1995). Previous studies have established that when GVTs establish virtual collaboration with people from diverse cultural backgrounds and different geographical distances, many challenges arise (Araujo & Chidambaran, 2008). One of the key complexities in creating effective team performance rests on the issue of trust. In this paper, we discuss the

impact of culture on the ability of GVT members to develop swift trust. The key question involved differs between cultures -- for the individualistic culture, it is 'Can you work with me?' and for the collectivistic culture, it is 'Can we work together'. These evidently have important implications for MNCs when assembling GVTs. Cultural values thus become a critical factor for organizations to consider because different cultures have different expectations, purposes, and objectives. In essence, cultural values are one of the antecedents to the development of swift trust within GVTs.

In this paper, we first introduce the phenomenon of GVTs and their establishment of swift trust, and how cultural values impact the development of such trust given an overarching research question and research objectives. In the second section, to lay a firm foundation for our discussion, we provide a literature review by establishing a clear understanding of several underlying concepts and definitions, such as in-group and out-group, affective vs. neutral, and individualism vs. collectivism, all of which tie into the cultural orientation of high vs. low context, swift trust, and global virtual teams. We further review the impact of cultural values on swift-trust formation among people engaged in virtual cross-border collaboration by developing a conceptual model. We then present several arguments that establish how cultural values impact the ability to form swift trust within GVTs based on theoretical lenses. All the concepts based on relevant cultural dimensions from cross-cultural theorists such as Hall (1976), Hofstede (1980), and Trompenaars (1994) are discussed to provide the study with theoretical lenses. In the third section, we briefly describe our research design which is driven by a qualitative meta-analytic review. Then, we present our findings in which we provide in-depth descriptions based on the themes from the sampled top IS journal articles (n=55) that we systematically reviewed and analyzed. The subsequent section discusses the findings by tying it back to the literature and then concludes with four culturally-attuned propositions. In the final section, we outline some implications for MNCs, followed by concluding remarks on the significance of building swift trust for GVTs.

1.1 Research Question and Objectives

In this qualitative meta-analytic review, we explore the overarching research question: 'How do cultural values facilitate or hinder the formation of swift trust within global virtual teams?' The paper develops a meta-analysis using a thematic approach based on the following objectives:

- a. To seek an understanding of the concept and its differences in GVTs vs. VTs;
- b. To explore the formation of trust and/or swift trust within GVTs;
- c. To describe the influence of culture on GVTs;
- d. To look into the relationship between culture, trust, and GVTs

1.2 Conceptual Framework

Figure 1.0 presents a conceptual model of cultural impacts on the development of swift trust during virtual cross-border collaboration with the goal of achieving high performing global virtual teams. To explore the formation of swift trust within global virtual teams from cultural perspective, we will look at the cultural orientations of the team members based on the continuum of context -- high vs. low. People in either cultural orientation ascribe to four cultural values which rest on two different sets of cultural dichotomies: (1) the role and interest a person takes at work, either individualism (self-interest) or collectivism (group interest), (2) the way people accomplish organizational goals, either affective (relationship oriented) or

instrumentalism (task-oriented) and (3) to whom people will likely form a trusting behavior, either the in-group (family members, spouse and friends) vs. out-group (strangers and acquaintances). Although in the following section we mentioned many variables in cultural values as introduced by cross-cultural theorists, in this paper we only apply the cultural dimensions relevant to the cultural orientation of high vs. low context and its role in building swift trust within global virtual teams.

When we look at the cultural values ascribed to by people from the different cultural orientations, it is important to understand the concept of in-group vs. out-group, which was introduced by Triandis et al. (1988). According to Hofstede (1984), the concept of in-group vs. out-group can be contextualized with respect to the cultural values such as individualism vs. collectivism when deciding the roles of the individual and the group. A key question to be answered when GVTs collaborate at a distance is ‘Whose interest prevails—self-interest or group interest?’ For collectivistic people, the concept of ‘in-group’ includes family members and friends. Those who are out of these circles are the ‘out-group’ which includes strangers and acquaintances. Triandis, Bontempo, Villareal, Asai, & Lucca (1988) assert that the relationship between in-group members is normally stable and consistent over time. In contrast, individualistic people tend to belong to many group memberships without discriminating between in-group and out-group. Findings from Gomez, Kirkman, and Shapiro (2000) have confirmed that when a team member is perceived as in-group, the collectivists evaluated him or her more generously as compared to individualists. Moreover, collectivistic individuals placed a high value on contributions that foster relationship maintenance while individualists valued task-oriented contributions.

Another cultural value that of affective vs. instrumental, can be applied to illustrate the importance of in-group vs. out-group for swift trust formation when it comes to goal achievement. High context culture depends largely on collective efforts and thus individuals from such a culture prefer to establish relationships prior to taking up any tasks assigned to them. The ‘affective’ element places a high value on relationship-orientation. It thus becomes the crucial basis of forming trust with the members of a team. Without it, collectivistic members find it challenging to establish trust at all, and even more so the swift trust which needs to be developed in a shorter time. Conversely, people who place greater emphasis on the ‘instrumental’ element in virtual collaboration much prefer to take into account only the task to be accomplished. Hence, the instrumental goal becomes the basis of virtual collaboration. What matters to the low context culture as individualistic people is that they can achieve reciprocal goals between tasks and personal interests (Zakaria, Stanton & Sarkar-Barney, 2003).

The cultural dimension called individualism vs. collectivism also helps explain the ‘sense of belonging’ a person feels when it comes to job satisfaction and tasks. For example, individuals from high context cultures normally prefer to work with groups of people such as spouse, family, and close friends, those previously defined as their in-group. They also feel more comfortable achieving their task through collective efforts. On the other hand, those with individualistic values thrive on single-handed or independent effort. Individuals from low context cultures value autonomous thinking and thus they favor making individual decisions. Consensus building is the nature of decision making processes in collectivistic cultures—countries that fall in the same group as high context cultures.

Once we understand the concept underlying each of the cultural values ascribed to by members of high context and low context cultures, then the key issue is whether or not a team member is capable of developing swift trust. If yes, what is the quality of such trust formation—

high or low? In our model, we want to further analyze the process of developing swift trust based on the level of intensity. According to Meyerson, Weick and Kramer (1996), swift trust contradicts the traditional definition of trust, which hinges on building interpersonal relationships. Instead, swift trust deemphasizes the interpersonal dimension. It is based instead on broad categories of social structures and actions. The main downfall of swift trust is that it is fragile and temporary in nature. Jarvenpaa and Leidner (1998) were the first to discover that members do experience swift trust in this new working structure, when they investigated the issue of developing and maintaining trust in GVTs. It is even more challenging to develop and maintain swift trust given the diverse cultural backgrounds that global team members may confront and experience.

Several literature reviews in the area of cross-cultural management and intercultural communication have clearly established that one of the factors that can hinder teams performance is an inability to trust within and among team members from divergent cultural backgrounds (Fukuyama, 1996; Kim, Park & Suzuki, 1990; Gudykunst & Kim, 2002; Ting-Toomey, 1999). As DeSanctis & Poole (1997) argued, members that have heterogeneous backgrounds will normally take more time to establish trust than those from homogenous backgrounds. Again, to emphasize, depending on members' cultural backgrounds and communicative preferences, not all members are willing to develop swift trust, or are even capable of trusting strangers in a relatively quick manner in order to commit and carry out the tasks given. Even so, swift trust may be possible in virtual collaboration. The argument made here is that the swift trust that is formed will have one of two types of quality—a high level of trust or a low level of trust.

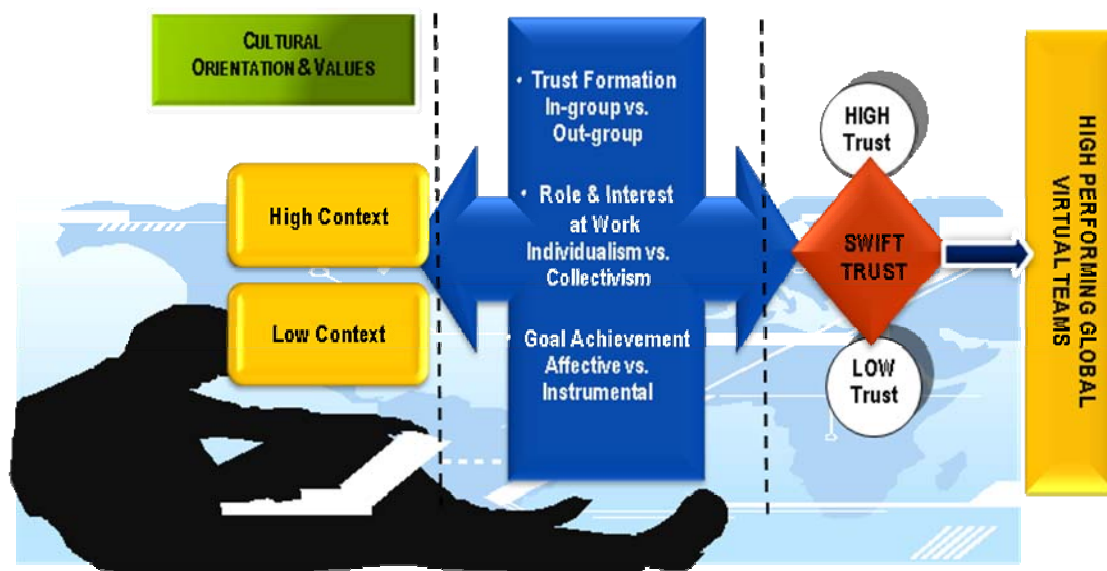


Figure 1. 0: Conceptual framework for understanding GVTs engaging in virtual cross-border collaboration (Zakaria & Mohd Yusof, 2008)

Powell, Piccoli & Ives (2004) clearly state that a "team" is defined as a small collection of people at work. Teams are an important means of enhancing an organization's creative and problem-solving capabilities (Jarvenpaa, Ives, & Pearlson, 1996, Zachary, 1998). GVTs are normally assembled on a temporary or ad-hoc basis for a short period of time, for example from two to eight weeks. Jarvenpaa & Leidner (1999) define three important characteristics of GVTs: (1) culturally diverse, (2) geographically dispersed, and (3) use electronic communication. In their later work, Jarvenpaa and Leidner define a sub-type of team, called ad-hoc or temporary, as one in which team members do not have a historical background and may not have future efforts together as a group (Lipnack & Stamps, 1997). In a similar vein, Maznevski and Chudoba (2000) define GVTs as groups that (1) are identified by their organization(s) and members as a team; (2) are responsible for making and/or implementing decisions important to the organization's global strategy; (3) use technology-supported communication substantially more than face-to-face communication; and (4) work and live in different countries. Computer-mediated communication (CMC) technology provides opportunities for people to collaborate without the constraints of time and space. As shown in the diagram above, as the end result it is imperative for MNCs to achieve high performing GVTs so that geographical distance and cultural diversity do not pose any difficulties when engaging in virtual cross-border collaboration. Building trust is an essential element in ensuring work team effectiveness (Costa, 2003; Holton, 2001) and yet cultural diversity can be either a facilitating or hindering factor to the formation of swift trust in a virtual work environment (Branzei, Vertinsky & Camp, 2007; Mollering, 2006).

1.3 Methodology

We employed a qualitative meta-analytic review to fully understand the topic of interest based on what has been published in the top IS journals. We undertook a thematic analysis by reviewing journal articles as the main source of documents or datasets. The purpose of the review was to obtain a broad and in-depth understanding of the topic of interest: cultural influences on the formation of swift trust in GVTs. We sampled almost 3239 documents over a period of fifteen (15) years, from 1995-2010, in seven (7) top IS journals as ranked and rated by a global organization known as Association of Information Systems (AIS) who has over 4,000 IS scholars across 90 countries. Two trained reviewers coded the documents based on the keywords we selected as the criteria of search (e.g. GVTs, virtual teams, trust, swift trust, and culture). The reviewers manually and systematically screened each year, volume, and issue to completely categorize every single article. Based on these reviews, we selected for in-depth analysis 55 articles which matched two or three of the codes. In the 15-year period under review we found a startling result: less than 2% of articles published in the selected top IS journals have discussed this crucial topic. In the following section we present the findings based on the three areas of interest: GVT and culture, GVT and trust and GVT and culture and trust. In sum, our meta-analysis found that in the top IS journals, the topic is still fundamentally under-researched, hence warranting many more studies in order to be fully investigated by IS scholars.

1.4 Significance of Study

It is crucial to note that trusting behaviors are often said to be rooted in one's cultural values (Fukuyama, 1995). For some cultures, it takes longer to develop a bond between two people. In other cultures, people only focus on tasks to be completed, and hence are not concerned with relationship building. This difference has clear implications for multinational corporations (MNCs) that desire to utilize GVTs as part of an innovative and competitive work structure.

First of all, MNCs need to know whether the cultural backgrounds and structure of GVT members are homogenous or heterogeneous. Such understanding will allow a manager to assess whether or not the virtual cross-border collaboration is likely to be successful, because different cultures perceive and exhibit trustworthy behavior differently. If the team members' cultural backgrounds are heterogeneous, team members need to be given training to help them develop cross-cultural competencies. For instance, team members may first need to be educated by making them aware of their cultural differences. Once this is achieved, members can be sensitized to the routines, norms, values and attitudes of their teammates. Once the team members achieve respect for and appreciation of their differences, this will lead to the appropriate behavior by team members. Essentially, three types of cultural competencies are suggested—cognitive skills, affective skills and behavioral skills (Chen & Starosta, 1997).

Additionally, firms need to create an organizational culture or climate that is conducive to development of these competencies to ensure that virtual cross-border collaboration within teams is successfully carried out. Organizational culture consists of the practices, rules, guidelines and procedures inculcated at the organizational level. At the highest level, the top management must provide support for the use of GVTs as a tool to create synergy between diverse cultural backgrounds of the individual team members. Learning to trust at a distance consist of on many layers—individual, teams and organizational—hence all must be facilitated through organizational culture.

2.0 Cross-Cultural Theoretical Underpinnings

In this section, we synthesize three cultural dimensions as introduced by cross-cultural theorists Edward Hall (1976), Geert Hofstede (1980), and Fons Trompenaars (1994). Each of the theorists has introduced many cultural dimensions. Hall has introduced three cultural dimensions namely space, language, and time. Hofstede developed five cultural dimensions: power distance, uncertainty avoidance, individualism vs. collectivism, femininity vs. masculinity, and short term vs. long term. Building on these two theories, Trompenaars identified seven dimensions: universal vs. particular, individualism vs. collectivism, affective vs. neutral, specific vs. diffuse, ascription vs. performance, sequential vs. synchronous (orientation to past, present and future), and control vs. success.

2.1 Edward Hall (1976) : High Context vs. Low Context

As an intercultural communication theorist, Edward Hall (1976) introduced a cultural dimension called 'context.' Context has two extreme points, which are termed high context and low context. However, it is useful to understand that context is a continuum, and realistically people can fall anywhere along the continuum from high to low.

In short, context explains messages that are either implied or verbally expressed in written or spoken form. People who fall under the 'context culture' (high context) depend largely on messages that capitalize on non-verbal cues, either demonstrated by a person's behavior or words. Words used oftentimes are indirect, tactful, polite, and ambiguous. Conversely, in the 'content culture' (low context), messages are directly interpreted from a person's words, either written or verbal. Words used thus are direct, succinct, and specific. Some examples of high context culture countries are Malaysia, India, China, Thailand and many more—the majority of the Eastern countries. Low context cultures include countries such as the USA, UK, Germany, Australia and others.

High context people value relationship building before they collaborate or work together. They feel that knowing others at an interpersonal level will assist them in understanding and interpreting the meanings of the messages they receive (Gudykunst et al, 1997). Non-verbal cues such as body language, tone of voice, facial expressions, and gestures are all important elements for effective intercultural communication in high context cultures. The information cues used by low context cultures, on the contrary, are very different. They do not place much importance on relationships; rather, they prefer to conduct business or engage in collaboration through formal agreements such as written contracts between two parties. Their purpose of collaboration is strongly dependent on the task to be done or the performance to be achieved, and less dependent or emphasized on relationships in the initial stage. Non-verbal cues are largely irrelevant or ignored as people put more emphasis on the verbal cues by communicating and/or expressing their objectives and goals in their spoken and written words. Hence content becomes more desired than context.

2.2 Geert Hofstede's (1980): Five Cultural Dimensions

In the early 1980s, organizational and cross-cultural theorist Geert Hofstede (1984) conducted hundreds of studies to examine the impact of cultural values on organizational behavior and management practices. He developed five cultural dimensions, which he called power distance, uncertainty avoidance, individualism vs. collectivism, masculinity vs. femininity, and short vs. long-term time orientation. Each dimension provides cultural insight into management practices: power distance explains the acceptance of unequal power distribution in the organizational structure, uncertainty avoidance relates to the level of risk and uncertainty that people are willing to accept, individualism vs. collectivism is concerned with the group(s) of people an individual cares for or belongs to, masculinity vs. femininity explains the level of commitment towards one's job, and time orientation illustrates the way people view organizational planning in terms of the length of time involved—short term vs. long term.

2.3 Fons Trompenaars (1984): Seven Cultural Dimensions

Based on Hall's and Hofstede's work, in the late 1980s Fons Trompenaars further elaborated the dimensions into seven cultural perspectives with some overlapping. In a similar vein, his work is also based on organizational perspectives. Trompenaars' dimensions are universal vs. particular, individualism vs. collectivism, affective vs. neutral, specific vs. diffuse, ascription vs. performance, sequential vs. synchronous (orientation to past, present and future), and control vs. success. The first five dimensions cover the behaviors and relationships when people deal with others. They describe human relationships in terms based on the theories of sociologist Talcott Parsons. Basically, the five dimensions explain the differences in cultural values when it comes to conducting business and understanding diverse management practices. Similar to Hall's

dimension of time, Trompenaars' sixth dimension explains the different ways people perceive time when they work—a question of whether people do one thing at a time (sequential) or do many things at a time (synchronous). His last dimension deals with whether a decision is made from an internal side or the external side—a question of controllable vs. uncontrollable decisions.

3.0 Research Design

In this section, we present the overarching research design and sampling rationale, data collection, and analysis methodologies. Since this topic is still under research, and since our main research objective was to review only the top IS journals in our search for studies that have looked into the influence of culture on the formation of trust within GVTs, we employed a qualitative meta-analysis approach to obtain an overview of the depth and extent of such studies. We used a thematic document analysis method, which is a systematic way of describing empirical evidence across a collection of related studies.

3.1 Document Sample

Once we developed our overarching research questions and objectives, we worked on the sampling frame. First, we began to explore and perform searches in several scholarly online databases such as Google Scholar, ABI/Inform Global, Scopus, and Web of Science. Our goal was to locate documents published between 2000 and 2010 by using different sets of keywords that fit with concepts such as GVT, trust, swift trust, and culture. However, after several weeks of intense search efforts, we discovered that keyword searches of any of the abovementioned databases yielded overwhelming results, listing more than thousands of documents. Table 2.0 lists the early statistics when we used multiple keywords to search Google Scholar. Not only that, the results yielded documents from many interdisciplinary fields which made it extremely time consuming to parse out those based on a specific understanding of the research topic.

Table 2.0 Research Hits using Online Research Database Research

Database: Google Scholar	Search Keywords	Database results	IS top journals
Remark: We used the phrase "global virtual teams" since we wanted to capture the essence of teams working 1) in a distributed environment 2) from dispersed geographic locations 3) using information communication technologies and 4) with members of heterogeneous backgrounds from all parts of the world.	Global virtual teams	326,000	Put in final number
	Global virtual teams + culture	111,000	Put in final number
	Global virtual teams + culture + trust	51,800	Put in final number
	Global virtual teams + culture + swift trust	9,600	Put in final number
			Put in final number
Remark: We also used the phrase "virtual teams" to understand the differences in the two terms. We	Virtual teams	651,00	Put in final number

discovered that this search captured documents that have the GVT keyword as well. This is evident by the increased number of documents produced by this search compared to the above search.			
	Virtual teams + culture	164,000	Put in final number
	Virtual teams + culture + trust,	74,800	Put in final number
	Virtual teams + culture + swift trust	11,000	Put in final number

*Results for searches in the other scholarly databases were comparable.

In order to refine the field of study, we recognized that GVTs frequently use, and are heavily dependent on, information technology in order to operate effectively at a distance, since they rely on collaborative technologies both asynchronous (email, message board forums, and etc.) and synchronous (online chat, videoconferencing, web conferencing, instant messaging, electronic meeting systems, Web-based VoIP, etc.). Therefore, we decided to tighten the focus of our sampling frame by refining the source of documents to only ‘A’ ranked IS journals (see Table 1.0) instead of massive scientific databases. The journals selected were based on the ratings assigned by the Association for Information Systems (AIS). AIS is the leading global organization for academics specializing in information systems. Founded in 1994, AIS has built a professional scientific society of 4,000 members from 90 countries and is a key player in the advancement of the IS academic community. AIS selected eight (8) journals as top-ranked in the IS field; however, we could only get full-text access to seven of the journals. Getting full text access was an important criteria since we wanted to acquire a comprehensive (meta) understanding of the content that is precisely related to our research question.

Table 1.0: Selected documents based on ‘A’ ranked IS journals

Number	Documents: Top Information System Journal
1	MIS Quarterly (MISQ)
2	Information & Management (IM)
3	Information Systems Journal (ISJ)
4	Journal of Management Information Systems (JMIS)
5	Journal of Information Technology (JIT)
6	Information Systems Research (ISR)
7	European Journal of Information Systems (EJIS)

Source: <http://home.aisnet.org/displaycommon.cfm?an=1&subarticlenbr=346>

3.2 Identifying Documents

All the documents collected were published between 1995 and 2010, covering a time period of 15 years. We selected the 15-year time frame because we traced the rise of virtual work structures that originated from the early conception of telecommuting or teleworking back to the early to mid-1990s. With the emergence of this work structure, the idea of people working in teams whose members come from different geographic locations became an attractive and practical strategy for MNCs as a way to reduce heavy travelling costs, relocation, and

expatriation issues. Given this span of time, we also hope to capture GVT-related studies along the trend during which the topic of GVTs begin to rise and take shape. We also anticipate that from the 21st century forward the work structure will become more sophisticated due to technological advancement. In addition, the complexities of teamwork will continue to intensify due to geographical, chronological, technological, and cultural challenges. Hence, GVTs will be a more and more appealing phenomenon and an important research topic to explore. While identifying the documents, several other review criteria as suggested by Slavin (1986) were considered, such as:

- Content relevance: Research papers that contained keywords such as GVTs or virtual teams, with a focus on any of these themes: swift trust, trust, culture, or the effects of culture on swift-trust formation for global virtual teams.
- Span of time for data collection: 5 years, from 1995 to 2010 (sufficient time frame to examine the nature, development and issues of GVTs)
- Language of documents: English-language publications

Using full-text articles available on the specific journal websites, two trained coders manually and systematically screened each year, volume, and issue to identify studies based on the abovementioned keywords. Based on their systematic and thematic reviews, they coded the documents based on specific keywords selected as the criteria of search (e.g. GVTs, trust, swift trust, culture) for in-depth analysis. Only 55 articles matched two or three of the codes.

3.3 Coding Procedure and Codes Development

Since we had, despite our limitation to A-list journals, a massive set of documents to be screened and coded, we decided to have two coders review and code the documents (refer to Figure 3.0). The review was conducted using a deductive approach since the researchers knew exactly what to look for in the datasets. We were not interested in a comprehensive list of everything that had been studied in top IS journals; instead, we focused our systematic efforts based on our specific research question. The research assistants were educated as to the overarching research agenda and the aim of the meta-analysis. They were trained on how to select the articles by understanding the nature of the subject matter. As they had minimal research experience, we took three to four weeks to get them fully familiar with research process.

We instructed them to first explore the online scholarly databases (as abovementioned) using the specific keyword phrase "global virtual teams" for the search. The primary purpose was to find documents or journal articles that looked at teamwork. In the initial effort, we did not limit the study by year of publication. We sampled out the first 50 articles that matched the keywords. We found that the first challenge was to identify and define the nature of teamwork. For example, besides the term GVT, various other terms are used that have a similar meaning though not identical—e.g., virtual teams, non-collocated teams, distributed teams, dispersed teams, teams at different geographical location.

After much searching, we found that most of the relevant studies used the term "virtual teams" and thus we decided to include all articles that used that phrase as a keyword and exclude articles that have just "teams" as the keyword. For example, articles from Keskin (2009) or Tung-Chin & Chien-Chih (2010), although qualifying as a teamwork study that looked into trust or culture, the articles were not coded because the teams were not distributed or virtual in nature. So the keyword was limited to the phrases GVT or virtual teams. Other coding rules included

determining that documents with only a single keyword such as trust, or swift trust, or culture would be excluded from coding. Documents that had a combination of terms, such as GVT + culture or GVT + trust, were accepted for further analysis. The most ideal candidate articles would be documents inclusive of all three keywords: GVT, culture and swift trust.

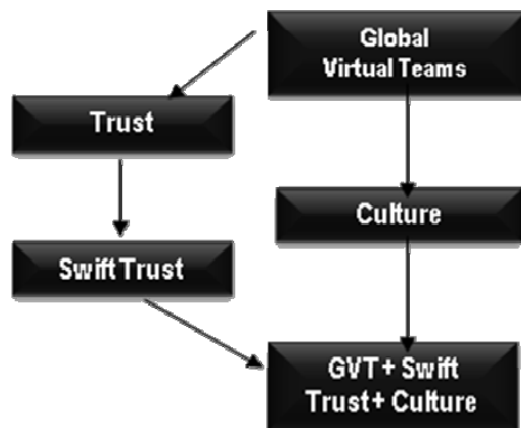


Figure 3.1: A Framework of Thematic Code Structure

3.4 Intercoder reliability

We went through several iterations with the coders to ensure they would accurately code the data and avoid any misleading and erroneously selected articles for analysis and review. We used sample documents to train them. We asked both coders to separately review and apply the codes, we compared their results, and then discussed the decisions made for the document that was inaccurately coded. Even after being given specific criteria and coding rules, the coders made some mistakes. This meant that we had to go through several training cycles to ensure the coders really understood the process and the subject matter. In the final stage, before they applied the revised codes to the rest of the documents, we decided that the basic foundation of the document search would be based strictly on GVT and/or virtual team study while also taking into account the various abovementioned coding rules.

During code finalization, the coders were asked to carefully screen all the titles of the journal articles and read the abstracts for confirmation in the coding process. Coders also had to do a count of the total articles in each journal, volume, and issue so that the overall statistics of the documents selected could be obtained. We conducted intercoder reliability checks at two intervals during the first round when they applied the codes on the sampled documents. At the first stage, only 65-70% agreement was achieved between the two coders. Once the codes were further refined and training repeated, at the final stage the two coders managed to achieve an agreement percentage of 90%.

3.5 Thematic and Document Analysis

At present, very few studies have conducted meta-analysis reviews on the topic of GVTs. So far, the existing work has only looked at a meta-analysis of literature on virtual teams (Ke, 2009; Lin, Standing & Liu, 2008; Hertel, Geister & Konradt, 2005) which has a slightly different meaning from GVTs. The purpose of employing thematic meta-analysis review and document analysis is to build a concrete foundation on previous studies that have looked at GVT.

First, we used document analysis, a constant comparative method, to code the data, revise the coding categories, reanalyze the studies, and gain new insights from the phenomenon. To obtain a credible document analysis, it was suggested that we develop a perception of thoughtful engagement (Forster, 1994; Knowles, 2008). With such an approach, we were able to provide a rich understanding of the practices and context of GVTs in general, and to understand the cultural factors that affect trust formation in GVTs specifically. Furthermore, this study also systematically reviewed and synthesized the theories, methods, and findings of both qualitative and quantitative inquiries on GVTs and cultural effects on swift trust formation.

It should be clearly noted that document analysis is not a review of all relevant documents. Instead the analysis is performed on a sample (in this case $n=55$) selected from the documents drawn from each of the seven IS journals. The objective is clear: we want to provide a detailed description of GVTs in relation to culture and trust. The focus, however, needs to be limited and narrow, so that the outcome will bridge the gap between what has been studied and known and what has not been studied in the selected topic.

We went through the documents with a deductive approach and then continuously developed and refined the codes with the coders as we went along. We grouped the documents into four categories, depending on their significance to the content of the study based on the codes we developed. The codes were developed based on a hierarchical and relational structure, beginning with GVTs followed by trust and swift trust, and lastly the cultural effects (see Figure 3.1).

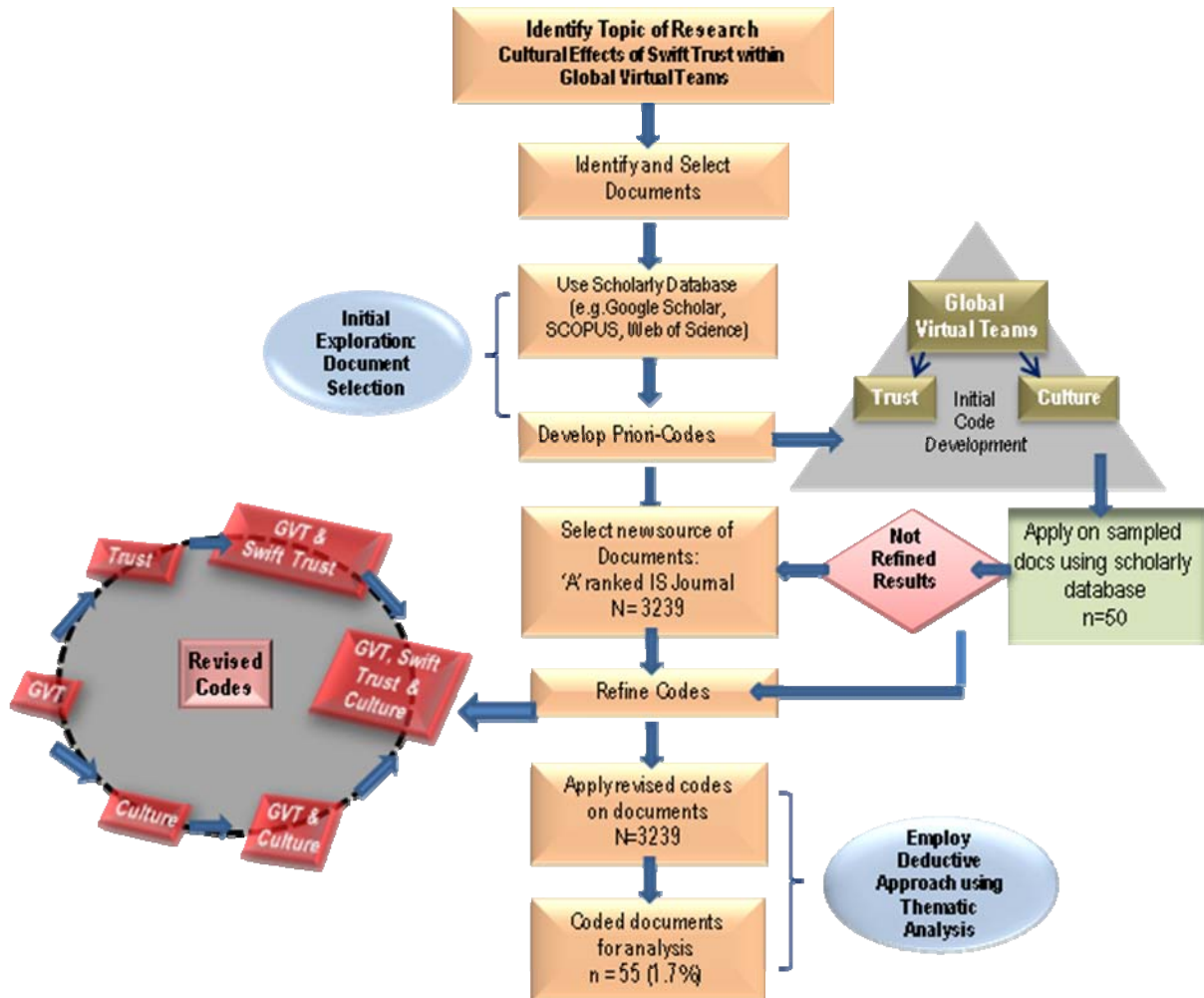


Figure 3.1: Coding procedure and development

3.6 Justification for Method and Future Directions

First, we did not conduct a meta analysis that is quantitative in nature. A meta analysis is a study that uses effect size to understand a phenomenon and is often carried out with quantitative measurements. In our study, the sample size we obtained was too insignificant to generalize about the cultural influences on swift trust within GVTs and also achieve a valid and reliable effect size. Additionally, we believe that the topic is still fundamentally under-researched, hence requiring more exploration by means of in-depth descriptions (Park & Gretzel, 2007). Qualitative meta-analysis, also referred to as meta-synthesis, is similar to quantitative meta-analysis; however, it is interpretive rather than aggregative (Paterson et al. 2001). Many studies have indicated that meta-analysis has greater methodological strength compared to traditional qualitative reviews, specifically in its ability to measure the effect size (Moberg et. el 1999; Schepers & Wetzels, 2007; Gelderman, 1998). But they further argue that meta-analytic procedures are most powerful if and only if the effect size can be based on a large number of studies. In ours, the analysis was made on only 55 articles although we carried out an extensive review of IS literature covering 15 years. The number of studies examining GVT was

found to be extremely limited in the past decade, indicating the need for such studies in future research, with a focused interest on cultural effects on swift trust formation. Thus, at best, a qualitative meta-analysis by way of thematic analysis fulfills our primary goal, which is to provide valuable and rich insights into the phenomenon at hand.

Second, our study only reviewed the top IS journals by use of refined keywords, instead of looking in scholarly databases. We wanted to fully capture whether or not the topic of GVTs is a common theme or phenomenon that IS scholars are drawing upon. If yes, what is the trend of such phenomenon? With this qualitative approach to meta-analytic review, we found that the top IS journals are more inclined to focus their research on popular themes or topics such as information sharing, virtual communities of practice, computer-mediated communication, emergent leadership, coordination, etc and not on GVTs. The articles that we found on GVT, however, were interesting in that they addressed some of the dominant IS and management issues that were highlighted in the IS journals. The gap hence lies in the use of the new virtual working structure. In essence, it is a new work context, a new way of working with teams from different cultural backgrounds and locations but with inherent or matured IS or teamwork skills and perceptions such as conflict management, trust, structure and processes, life cycle, coordination, information sharing and knowledge management, and etc.

Third, our early exploration of the scholarly databases indicate to us that the topic of GVTs cover a wide spectrum of interdisciplinary fields such as management, cross-cultural management, sociology, psychology, organizational behavior, and many others that have strong connections to trust formation, cultural values and the use of GVTs. To further bridge the gaps between IS and other fields, we must also include other fields in future research so that a more all-encompassing picture of GVTs and their challenges can be totally understood and appreciated. Unfortunately, due to constraints of time and resources, we were not able to use another perspective of the topic which rests strongly on the management fields since cross-cultural and trust issues are often discussed in such field as well. We could instead use both categories—IS and Management—to help understand the research topics. Hence, a consistent effort related to qualitative meta analytic review can be continued on other related fields by using the same methodology and approaches.

In summary, with our specified goal of study and constraints, we opted for a research design and strategy that will provide a preliminary as well as an in-depth understanding of the topic of interest based on a systematic and rigorous research method to obtain scientific evidence without sacrificing reliability and validity. It was challenging to review such a high number of documents, particularly when the end result yielded only a fraction of the overall percentage documents reviewed. However, we were determined to go through the corpus of documents in order to identify studies that were empirically tested or conceptually written on our specific topic of interest.

4.0 Results

This section describes the findings of our study of GVTs and effects of culture on swift trust formation, based on our review of the seven top IS journals (refer to Table 4.0). We first present the overall view of the data and then discuss four themes that emerged from the exploratory reviews of the topic. The goal is to provide insight into the extent to which studies in the field of IS have researched the topic of interest. Four themes emerged on cultural effects on formation of trust within GVTs.

Table 4.0. Selected documents based on 'A' ranked IS journals

No	Documents: Journals	No. of Documents Reviewed	No. of Coded Documents	% of Usable Documents
1	Journal of Management Information Systems (JMIS)	607	14	
2	Information Systems Journal (ISJ)	254	10	
3	Information Systems Research (ISR)	358	8	
4	MIS Quarterly (MISQ)	759	8	
5	Information & Management (IM)	420	7	
6	Journal of Information Technology (JoIT)	460	4	
7	European Journal of Information Systems (EJIS)	381	4	
	TOTAL	3239	55	1.7%

Source: Association of Information Systems (AIS)

4.1 Overview of the topic in IS 'A' ranked journals

The number of articles reviewed broken down by journal title are shown in Figure 4.1. The total number of documents from 'A' ranked journals reviewed for this qualitative meta analysis was N=3239. A total of seven top IS journals were used. Only 55 articles were found to be related to the themes of VTs, GVTs, trust and culture, as shown in Table 1.0.

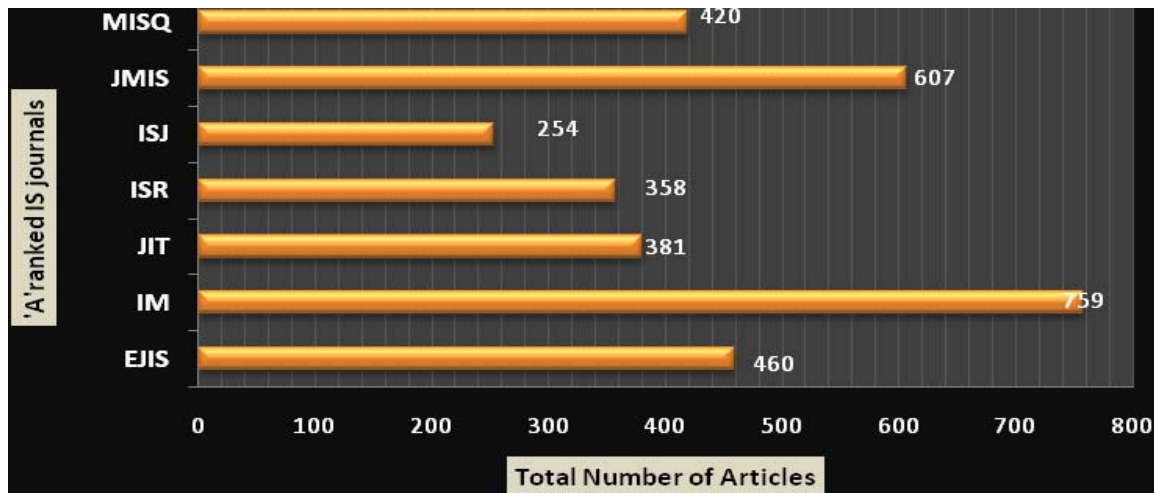


Figure 4.1: Distribution of documents by total number of articles and journal title

As for the distribution of the number of usable articles from the seven top ranked journals, the Journal of Management Information System (JMIS) had the most articles (14) related to the themes of VTs, GVTs, trust and culture. Next, the Information Systems Journal (ISJ) with ten (10) articles and Information Systems Review (ISR) with eight (8) articles followed by IM with seven (7) articles. The European Journal of Information Systems (EJIS) and the Journal of Information Technology (JoIT) had the fewest articles with four (4) each.

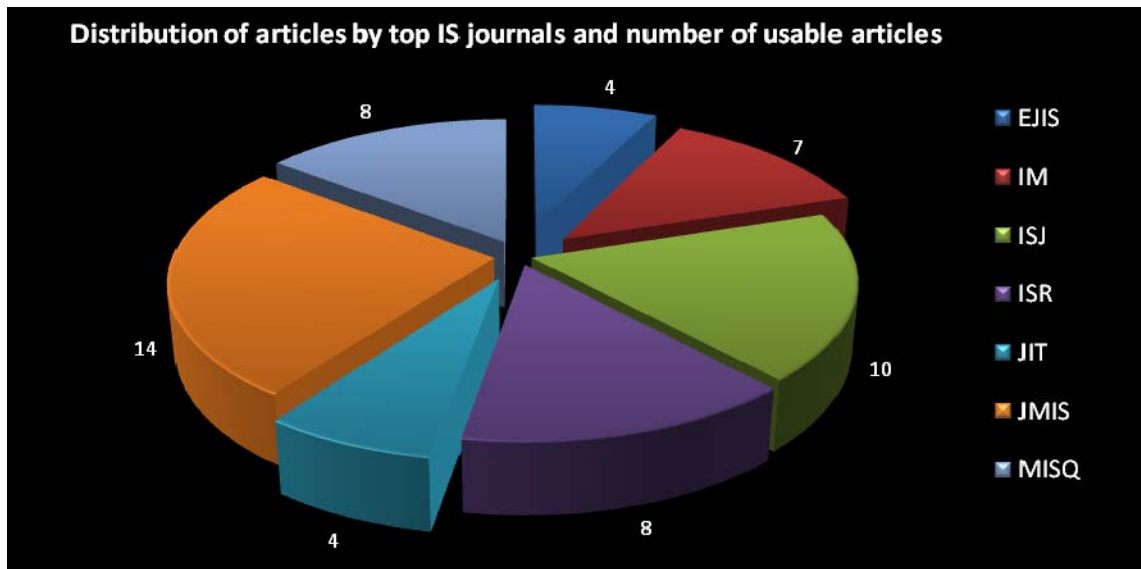


Figure 4.2 Distribution of number of usable articles by journal title

4.1.1 Distribution pattern of usable articles by theme

As shown in Figure 4.3, the two journals that had the most coverage on the VT theme between 1998 and 2010 were ISJ and ISR while for the topic of GVTs, JMIS had the most articles published. In total, JMIS had the most articles published on VTs and GVTs which is 13 articles – three were on VTs; another three were on VTs and trust; two others were on VTs and culture; one were on GVTs, trust and culture; and finally the most published articles (5) were on the topic of GVTs and culture. The next two journals, ISJ and MISQ had the second highest articles published (9 each) in the area of VTs, VTs and trust; and VTs and culture. During the 15 years, based on the analysis, the two journals had no articles published that were related to GVTs. Following this, the ISR within the span of 15 years had published eight articles where seven of them were related to the topic of VTs and one was on the topic of GVTs, trust and culture. The ISR had the third highest number of articles. The fourth highest, IM had more articles published in the area of VTs compared to only one article that was on GVTs and culture. In terms of which journals published the most on the GVT topic, five of the seven journals had articles related to GVTs – JMIS, ISR, IM, JIT and EJIS. The JMIS had the most (5) articles related to GVTs while ISR, IM, JIT and EJIS had one article each. The articles in IM and EJIS were on GVTs and culture whereas JIT, ISR and JMIS had an article each related to GVTs, trust and culture.

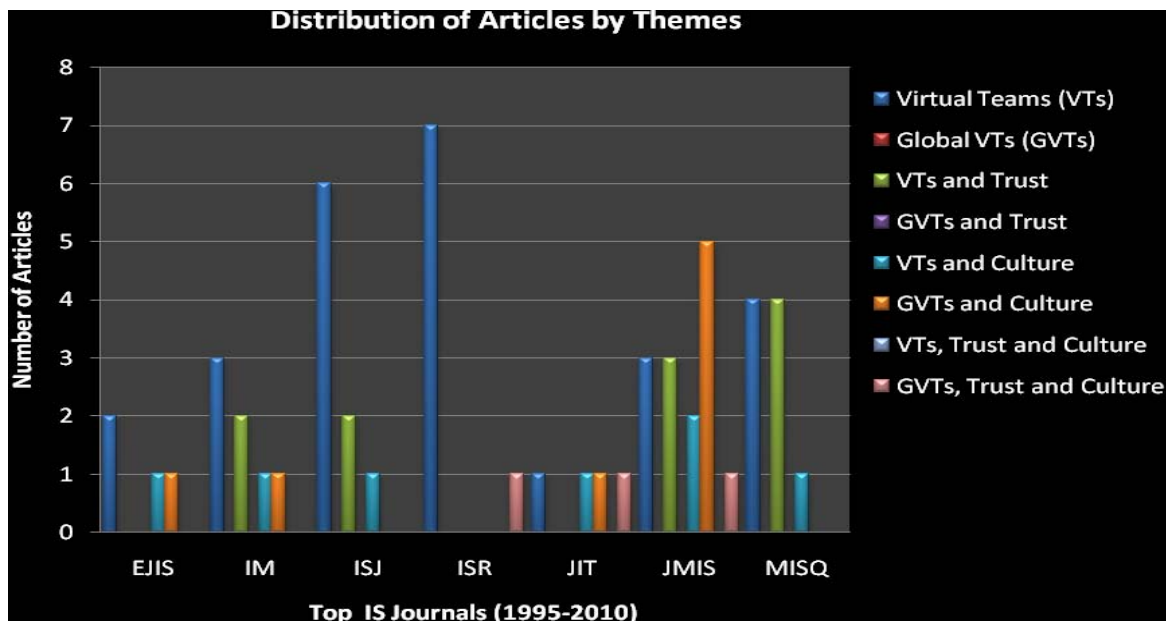


Figure 4.3 Distribution of Usable articles by Themes

4.1.2 Overall pattern of the research topic for each journal

The first paper written on the topic within our time frame was in Journal of Management of Information System (JMIS) in 1998, and was related to GVTs, culture, and trust (Jarvenpaa et al., 1998). Following that, researchers started to look at the issue of VTs. For instance, the ISJ had a special issue in 1999 (see Figure 4.4) that carried four articles on the topic, making it the

top single journal that published the topic over our 13-year window. As for a combined journal publication, from year of 2007-2010, there was almost 24 articles were published highlighting issues of culture and trust in GVT/VT. Over the next few years, from 2000-2002 (see Figure 4.4), there was a drop in the amount of research on VTs for almost every journal – an average of only one article published in four of the journals (MISQ, JIT, IM and JMIS). In 2003, JMIS had three studies on VTs and GVTs. As the years progress from 2005 onwards, every journal published an average of at least one article and from 2006 onwards, many researchers had started examining the issues of trust and culture in VTs and GVTs in a research setting.

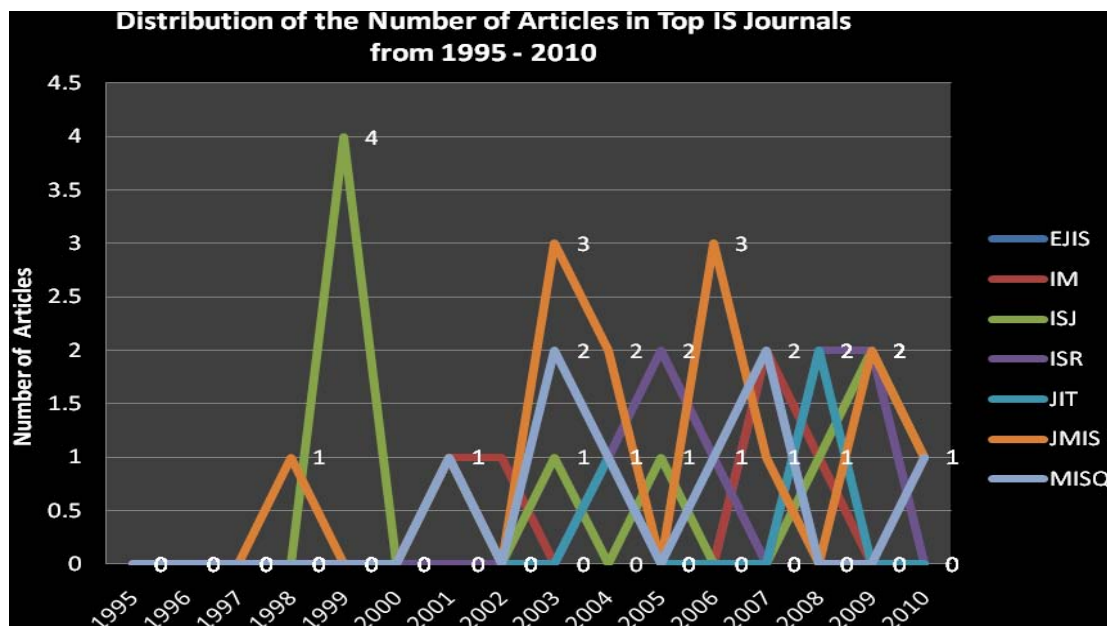


Figure 4.4 Distribution of the number of articles in the Top IS Journals from 1995-2010

4.1.3 Overall pattern of the number of research topics

The overall trend of publication showed that in the last six years (2005-2010), the seven journals published a combined total of 32 articles on the topic of GVTs and VTs, while in the earlier six-year period (1998-2004), a combined total of only 23 articles were published. In the year 2000, no articles were published on this topic. Hence, we can say that the topic of GVTs and/or VTs have demonstrated a volatile trend of increase, starting from it was initially defined in 1998 till 2010. In 2002, the topic showed a sharp rise through 2004, then the topic plunged in 2005, after which it showed a steady rise again from 2006-2008. From 2008 to 2010, there was another decline, but the number remained higher than in previous years such as 2002-2004 and 2005-2006. The specific trend analysis on a yearly basis shows that the topic received attention at the beginning of the early 21st century (2002), decreased dramatically in 2005, and then picked up again in 2006 with only a slight decrease from 2008-2010. In conclusion, the overall upward pattern of publication shows a promising development of research in GVTs and/or VTs, although it is true that if the numbers are analyzed against the overall percentage of published articles in the top IS journals, we see an alarming rate of only 1.7% of the total number of published articles addressing this important topic.

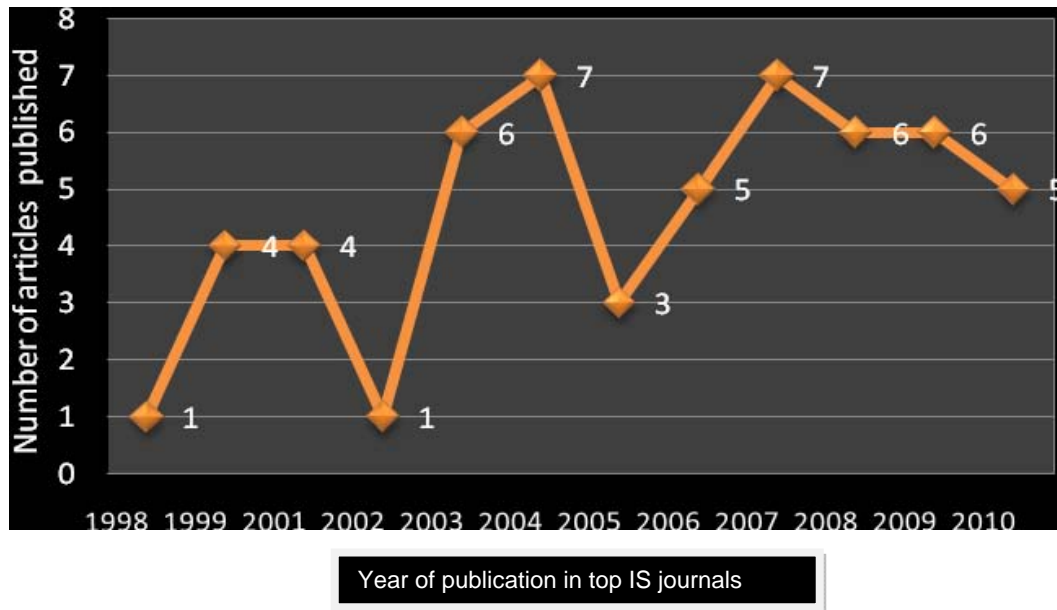


Figure 4.5 Distribution of the number of articles over 12 years

4.2 Thematic Findings

The following section gives a summary and an in-depth description of the four themes uncovered during our meta analytic review of research conducted by academic scholars in the top IS journals over the past 15 years. In general, these documents offer a deeper understanding of the conceptualization of GVTs vs. VTs; specifically, such analysis also helps us to refine our understanding through focused themes—i.e. trust, swift trust, and culture in GVTs. Given the thematic areas, we further looked into three questions: what has been studied, what are the gaps in the IS field, and what needs to be answered in future research either in IS or related multidisciplinary domains. We found that our 15 years of review was effective in encapsulating the development of the topic of GVTs in the IS field. Most importantly, we were able to find evidence of the progress and historical understanding of GVT studies entirely based on trust and cultural effects. As such, we were able to determine whether or not this topic provides a fertile area of study for further exploration and examination. The findings, detailed below, shed light on how and why GVTs appear to face challenges in achieving effectiveness due to two conditions: (1) the difficulty of forming swift trust given the novelty of the GVT work structure and (2) the diverse cultural backgrounds of team members.

The analyzed documents are organized around four themes, revealing the substance of how GVTs work. The first theme relates to the conceptualization of GVTs vs. VTs. It is important to understand whether or not the virtual teamwork concept is inclusive of culturally heterogeneity vs. cultural homogeneity, or what is termed as "national boundaries." A second theme is related to understanding the effectiveness of teams based on trust. It has been established that a team requires the 'trusting' element among and within its members in order to be cohesive, effective and sustainable over the short span of collaborating and working together

while geographically apart. Hence, the detailed descriptions provide insights into how trust is measured in GVTs. More important, however, is the discussion of swift trust, a new unit of measurement and evaluation of trust in the GVT environment. The third theme is associated with the effects of culture on GVTs. We describe how previous studies discussed issues such as ‘When does culture provide a challenge to the effectiveness of GVTs?’ and ‘How does culture hinder or facilitate team members' effective performance?’

The fourth and final theme is the inclusion of the effects of culture on swift trust formation within GVTs, and a description of how that further poses different challenges towards GVTs' effectiveness. In the following chapter, we delve into further discussion of how the effects of culture on swift trust as explored in other research domains (i.e. apart from IS) will strengthen the understanding of the abovementioned GVT issue. We postulate four culture-attuned propositions to enfold our discussion. In brief, future studies need to be undertaken based on the gaps we have identified through this qualitative meta-analytic review.

4.2.1 Theme One: Virtual Teams and Global Virtual Teams

In our qualitative meta-analytic review of articles, we found that the phrase "virtual team" (VT) is used far more often (80%) than the phrase "global virtual team" (20%). Therefore, we will first review the definition of VTs and GVTs and present their similarities and/or differences to seek for consensus of meaning, if any. We will also look at the definitions from both the macro level—a definition taken from the organizational stand point such as the rising phenomenon of virtual organizations (VOs)—and micro level, which is how the term was originally conceptualized at the individual and team level.

First, let us look at the meaning of VT at the macro level, as it is embedded in the context of VOs. Riemer and Klein (2008) began their conceptual paper by highlighting that a VO is indeed the emergent innovative organizational design in response to the turbulent and competitive environment as well as to changes in customer demands. They defined VO based on two standpoints: organizational and technological. Using the technological view, a VO is seen as an *ICT-enabled corporation* in which ICT plays the role of facilitating tools that create new forms of work structure and workforces such as virtual teams. On the other hand, in the organizational view, a VO is conceptualized as a *network organization*. People are seen as interdependently working like partners, yet each of them offers his or her own independent resources and expertise to reach common goals through shared common ground. Riemer and Klein further flesh out the concept of a VO by identifying three different types of virtualization: (1) organizational, (2) technological, and (3) temporal. All three types of virtuality illustrate the essence of culture, space, and time boundaries, hence are meaningful for understanding the emergence of VTs in organizations.

The types of virtualization are briefly described as follows. First, they emphasized that organizations need to create a conducive climate or culture which rests upon the relevant structure, vital resources, flexible arrangements, and appropriate mechanisms in order to create an effective VO. In turn, the organizational culture needs to be compatible with the existence of virtual teams. Second, for the technological type of virtualization, Riemer and Klein describe organizations as ‘geographically’ or ‘spatially dispersed’ set-ups which need technical support for new work structures such as virtual teams. Finally, the third type of virtualization, temporal, refers to the way tasks are structured over a short-term period. As such, team members are required to have some degree of flexibility to adapt to changes such as working from afar because they need to achieve goals within a shorter period of time than normal.

To put it simply, Reimer and Klein state that the characteristics of VOs allow flexibility and dynamism when developing networks and teams, yet these conditions present numerous challenges. Based on the three types of virtualization, they discuss the difficulty of setting up VTs, such as how time consuming it is to learn to collaborate and how challenging to develop trust in a shorter time compared to physically collocated teams.

In a similar vein, Chudoba, Wynn, Lu and Watson-Manheim (2005) also examined the differences between VOs and VTs based on their summary of IS researchers' findings. For instance, according to Kraut et al. (1999), the function of a VO is to outsource key components for production, whereas for a VT, the purpose is to develop temporary or ad hoc teams to solve problems, and usually the team members are non-collocated (Jarvenpaa, Knoll & Leidner, 1998). Looking at a VO from the macro level helps us to achieve a holistic view of the conceptualization of virtual teams in terms of the kinds and nature of the tasks and work structures involved when they operate in a virtual organization. If organizations desire to build VOs to keep pace with the latest competitive markets, Reimer and Klein seemed to be optimistic about the emergence of virtual teams as a new way of accomplishing this.

Nonetheless, when we advance to a more in-depth VT definition, we need to examine the varying degrees of virtualization as suggested by Chudoba et al. (2005). Such knowledge can provide further insights into VT effectiveness and its impact in a global organization. For example, Schweitzer and Duxbury (2010) found that the more virtual the team members are, the less effective they are. They assert that the degree of virtuality inversely impacts team performance. In support of this, Chudoba et al (2005) argued that teams experience discontinuities based on factors such as geography, time zone, organizational culture, national culture, work practices, and technology. All those factors can be classified into the three categories of team distribution, workplace mobility, and diverse work practices. They found that it is not the physical remoteness or dispersion of the members that affects team performance. Instead, what matters more is team members' availability, reliability and sociability in the work place, a question of how easily a person shifts from one place to another—i.e. from home to office or to another work location. The more mobile they are, the more positively it will affect their performance.

Another aspect of virtuality that influences team performance is the individual work practices that are aggregated when members team up or work together. The challenge surfaces when people have different ways of doing things, particularly routine tasks. For example, when virtual teams encompass different organizations, functionalities, or nationalities, the work practices differ. What is common in one organizational culture may not be sustainable in another and thus teams need to change to accommodate the differences in work processes and practices. It is these missing commonalities that pose new forms of discontinuities to the team members. As a consequence, the abovementioned factors stated by Chudoba et. al (2005) affect team performance.

Although Reimer and Klein presented the concept of virtual teams in light of the three types of virtualization, they did not discuss the degree of virtuality. Filling this gap, Chudoba et al. (2005) provided a specific understanding of VTs based on the degree of virtualization. They felt that, although other studies had found it difficult to define virtual work, by using the concept of discontinuities, they were able to measure 'virtualness' which in turn enhances the explanation of degree of virtualness in virtual work.

We further analyzed other IS articles and found that only some of them have clearly articulated a definition of VTs (key papers here include Sarker, Sarker & Jana, 2010; Lionel,

Dennis, Hung, 2009; Wakefield, Leidner & Garrison, 2008; O'Leary & Cummings, 2007; Griffith, Sawyer & Neale, 2003). These scholars seem to share a consistent meaning of VT that includes four fundamental work conditions. Its members:

- 1) are non-located and thus can work dispersedly across different organizational boundaries, functionalities, and/or geographical locations
- 2) use information communication technology (asynchronous and/or synchronous) to collaborate and communicate for work purposes
- 3) experience time differences when they work remotely
- 4) are assigned tasks or projects are based on temporally flexible schedules

Scholars have further argued that VTs clearly illustrate a common form of distributed work arrangement that employs technology to effectively and efficiently operate in any organization, as described above. Traditionally, team members are largely dependent on homogenous team composition for the establishment of trust, be it in their functions, organizational affiliations or nationality. The challenge then for ICTs is that team members are separated in different locations but may still be in the same geographic location such as team members working at different states in the country (i.e. New York vs. Seattle) as opposed to members working in different countries (Japan vs. German) As markets becomes more competitive and volatile, so must an organizational structure. To reinforce the ideas of Reimer and Klein (2008), the emergence of VOs paints a different yet realistic picture of VTs consisting more often of heterogeneous rather than homogeneous members so as to take advantage of the opportunities arising from information communication technologies and cross-border team collaboration.

The network view of organizations that exemplifies VOs also appears to support the idea of cross-border team collaboration in light of cultural aspects. Thus, it is evident that scholars who have researched this perspective begin to define VTs exclusively with cultural conditions (refer to studies from Seetharaman, Samarah, Mykytyn & Paul, 2004; Jarvenpaa, Knoll & Leidner, 1998), meaning that the composition of the members is heterogeneous in nature instead of homogeneous. As increasing numbers of MNCs are using VTs as a common form of work structure, the cultural boundaries within and among members need to be managed due to their complexity, which includes the national, organizational and functional parameters. Consequently, we must add one more important and distinctive characteristic to the four elements of the VT definition mentioned above:

- 5) team members consist of people from varied nationalities and different organizational cultures

In essence, we found that the meaning of "virtual team" varies on two aspects. If the study looks at VTs based solely on factors that influence its effectiveness—e.g. decision making, information awareness, social loafing, collaboration, knowledge management, information sharing, etc.—then the definition excludes the cultural dimension (Dabbish & Kraut, 2006; Chidambaram & Tung, 2005). However, if (1) the authors examined VTs in the context of multinational corporations, and (2) the studies are specifically interested in understanding the influence of culture on VTs, then the meaning of VT is inclusive of the cultural component (refer to Reimer and Klein, 2008, Kanawattanachai and Yoo, 2008; Chudoba, Wynn, Lu & Watson-Manheim, 2005; Cousins, Robey and Ziguers, 2007; Zhang, Lowry, Zhou & Fu, 2007; Seetharaman, Samarah, Mykytyn & Paul, 2004; Paul, Samarah, Seetharaman, & Mykytyn, 2004 & Jackson, 1999).

Despite the differences between the conceptualization of GVTs and VTs, based on all the articles reviewed, we found that there is some overlap, though the ratio between GVT and VT articles is starkly different (44:10). Most important to note is that the early conceptualization of VT only alluded to members who were dispersedly located and highly dependent on the use of IT. When the "global" element is added so that the concept of GVT is introduced, many scholars begin to consider the team's composition in terms of national background as well as organizational culture. Both aspects of culture are deemed important because MNCs hire team members that come from all parts of the world and belong to different organizational cultures, in part due to strategic partnerships and alliances formed at the VO level. Therefore, organizations begin to recognize the importance of cultural elements apart from the organizational, functional, technological, temporal, and other components.

MNCs are known to operate in a global environment and their staffing strategies oftentimes aim at selecting and hiring people from all over the world. Hence, they are keen on exploring the cultural issues that are inherent when employing team members—whether virtual or actual—from different nationalities. Given such differences, we summarize that for VT studies, one needs to look at the context of the virtual setting and whether or not it includes different geographical locations and nationalities to ensure that it addresses the cultural dimension. For the GVT concept, the cultural component is the crucial aspect that sets apart the definition of GVT and VT. Without doubt, when a study uses the concept of GVT, it is a clear investigation of cultural complexities within or across teams, whereas for VT studies, it may or may not be such a clear-cut case.

Although some of the later studies that use the concept of VT have acknowledged the cultural component in a team, they still use the term VT in their work rather than GVT (see Reimer & Klein, 2008; Kanawattanachai, et. al., 2008; Chudoba et. al 2005; Seetharaman, et. al 2004, Paul, et. al, 2004; Jackson, 1999). If we were to synthesize our findings based on the organizational trends (i.e. virtual and network organization) and cross-border collaboration across the globe, along with the progress in the past 15 years in the research of VTs and GVTs, we feel with certainty that both terms can be used interchangeably, particularly in today's work context.

4.2.2 Theme Two: Trust and Swift Trust in GVTs

Based on Table 4.0, our findings showed that only 24% (n=13) of the IS publications looked at the issue of trust particularly in the GVT and/or VT setting and specifically only two (n=2) articles looked at swift trust (refer to Table 4.0). Although such issue is exceptionally limited in its contribution to the topic of GVT, we noted that trust as an issue appeared to have extensively discussed in the top IS journal in general as well as other fields such as management, organizational behavior, human resource management, and etc. (Beranek, 2000; Ishaya & Macaulay, 1999; Kriffin-Peterson & Cordery, 2003; Kramer, 1999; McAllister; Zeffane & Connell, 03). The main argument made in all articles is that trust matters highly in the distributed organizational and team context for knowledge sharing (Robert, Dennis & Hung, 2009; Staples & Webster, 2008; Kanawattanachai & Yoo, 2007), coordination and communication (David, Chand, Newell & Resende-Santos, 2008; Stewart and Sanjay, 2006), team process (Larsen & Mc Inerney, 2002) relationship building (Paul & McDaniel, 2004), and how the dispositional traits such as Internet anxiety and personal traits (Thatcher, Loughry, Lim & McKnight, 2007; Brown,

Poole & Rodgers, 2004), and behavior control mechanism (Picolli & Ives, 2003), leadership, and relationship building (Pauleen,2003) affects trust formation within team members.

Table 4.1: Selected Documents based on ‘trust’ and ‘swift trust’ issues over 9 years

NO	YEAR	AUTHOR	JOURNAL	ISSUE
1	2009	-Dube & Robey	Information Systems Journal (ISJ)	Trust
2		-Robert, Dennis & Hung	Journal of Management Information Systems (JMIS)	Swift Trust
3	2008	-Staples & Webster	Information Systems Journal (ISJ)	Trust
4	2007	-Kanawattanachai & Yoo	Management Information System Quarterly (MISQ)	Trust
5		-Thatcher, Loughy, Lim & McKnight	Information & Management (IM)	Trust
6	2006	-Stewart & Sanjay	Management Information System Quarterly (MISQ)	Trust
7	2004	-Paul & McDaniel	Management Information System Quarterly (MISQ)	Trust
8		- Jarvenpaa, Shaw & Sandy	Information Systems Research (ISR)	Trust
9		- Brown, Marshall & Rodgers	Journal of Management Information Systems (JMIS)	Trust
10	2003	- Pauleen	Journal of Management Information Systems (JMIS)	Trust
11		- Piccoli & Ives	Management Information System Quarterly (MISQ)	Trust
12	2002	- Larsen & McInerney	Information & Management (IM)	Trust
13	1998	- Jarvenpaa, Knoll & Leidner	Journal of Management Information Systems (JMIS)	Swift Trust

Teams rely on trust most crucially when working together both at physical and face-to-face as well as the virtual setting. In the small group or organizational literature it was clearly noted that teams obtain its cohesiveness when trust is present (Handy, 1995; Webster & Wong, 2008). is an outcome of an ad-hoc or temporary teams that collaborate on important and complex tasks (Meyerson et al., 1996). Trust in this form cannot be developed at a normal pace since the length of time may vary. According to Adler (2007), swift trust normally takes place at the inception stage. Yet it is challenging to do so because the team members lack the historical backgrounds, composes of culturally diverse memberships, and operates on a complex, task non-routineness and interdependence projects. It is further suggested however that swift trust will enable members to initially look for external sources and perhaps a conducive condition for working together at a distance if the project needs to be completed in a rather short time (Greenberg, Greenberg & Antonucci, 2007).

Out of those ten articles, the premier article on GVTs is published by Jarvenpaa, Knoll and Leidner (1998) who found the existence of swift trust. In the past, studies that have looked at the phenomenon of small group or team work have established that trust is most crucial when working together because members obtain its cohesiveness when trust is present. Similarly, in the context of GVTs, Jarvenpaa, et al. has found that teams can be differentiated based on a continuum with two points --highest trust teams to lowest-trust teams. They also found that the same antecedents such as--trustor’s perceived ability, benevolence, integrity, and trustee’s

propensity to trust, can also be applied in the virtual team context and hence can provide the same predictions as in the face-to-face dyadic interactional situation. As a conclusion, they affirmed that the taxonomy of trust indicate the existence of swift trust. According to Meyerson, Weick, and Kramer (1996), swift trust is an outcome of an ad-hoc or temporary teams that collaborate on important and complex tasks. Trust in this form cannot be developed at a normal pace since the length of time may vary. According to Adler (2007), swift trust normally takes place at the inception stage. Yet it is challenging to do so because the team members lack the historical backgrounds, composes of culturally diverse memberships, and operates on a complex, task non-routineness and interdependent projects.

With reference to the previous studies (see Hinds and Bailey, 2003; Powell et al., 2004; Kraut et. al., 1990; Cramton, 2001 & Olson & Olson, 2000), Dabbish and Kraut (2006) have clearly highlighted that when teams are physically distributed, they faced work challenges because communication is inhibited due to barrier of distance and the level of contextual information received. For example, Dabbish and Kraut examined issues related to teams' information awareness of their tasks, roles, activities, availability, process, and perspective in order to design better information displays on the computer. The result showed that people value abstract information displays rather than high information displays. Essentially, with relevant information only, the timing for receiving information about the teams' activities can be enhanced and collaborator's workload is most favorable. The goal is to ensure that teams can communicate more effectively among team members when they are located remotely. In respect to communication effectiveness, it is also crucial to understand whether or not ineffective communication can relate to trust formation particularly at the initial stage of VT development.

4.2.3 Theme Three: Cultural Effects on GVTs

Studies that have captured the 'cultural' theme in GVTs/VTs seemed to have the most promising research agenda in GVT as compared to any other themes that we have reviewed in this qualitative meta-analysis (refer to Table 4.1). In specific, 17 articles (31%) were categorized under this theme and the topic was examined over the range of ten (10) years. Cultural sub-themes in this respect include two different cultural domains — (1) organizational culture—describing the procedures, systems, processes, attitudes, beliefs, values, structures, and sense of belonging—all in which encapsulate the 'way of life' and 'mental programming' of the team members in an organization that employ virtual teams, and (2) members' nationality in which teams originate from. In addition, we also have included another layer to such intricate concept in which we also qualify articles that use the research context as a basis for understanding how things are shaped or examined. In this type of empirical work, the authors are trying to determine the impact of culture on certain management practices or issues (e.g. decision making, conflict, leadership, knowledge sharing, etc.) or any other IT-related issues that have to be linked to and looked at in the context of GVTs or VTs. For example, many of the research works were conducted using a cross-cultural study (David, Chand, Newell & Resende-Santos, 2008; Fuller, Hardin & Davidson, 2006; Jarvenpaa, Shaw & Staples, 2004; Espinosa, Cummings, Wilson & Pearce, 2003; Massey, Montoya & Hung, 2003; Pauleen & Yoong, 2001; Kayworth & Leidner, 2001; Jarvenpaa, Knoll & Leidner, 1998). Those authors collected data from varied work location of the team members, e.g. New Zealand, Britain, Hong Kong, USA, India, Norway, Europe, Mexico, and many more.

Table 4.1: Selected articles based on 'culture' issue over 10 years

NO	YEAR	AUTHOR	JOURNAL	ISSUE
1	2008	- David, Chand, Newell & Resende-Santos (GVT)	Journal of Information Technology (JoIT)	National culture Organizational Culture
2		-Shachaf (GVT)	Information & Management (IM)	
3		- Riemer (VT)	Journal of Information Technology (JoIT)	
4	2007	- Hanisch & Corbitt (GVT)	European Journal of Information Systems (EJIS)	National culture
5		- Cousins, Robey & Zigurs (VT)	European Journal of Information Systems (EJIS)	
6		- Zhang, Lowry, Zhou & Fu (VT)	Journal of Management Information Systems (JMIS)	
7	2006	- Fuller, Hardin & Davidson (GVT)	Management Information System Quarterly (MISQ)	National culture
8		-Kankanhalli, Tan & Wei (GVT)	Information & Management (IM)	
9	2005	- Chudoba, Wynn, Lu & Watson-Manheim (VT)	Management Information System Quarterly (MISQ)	National culture
10	2004	- Paul, Samarah, Seetharaman, & Mykytyna (VT)	Information & Management	National culture
11		- Paul, Seetharaman, Samarah, & Mykytyna (VT)	Journal of Management Information Systems (JMIS)	National culture
12		-Jarvenpaa, Shaw & Staples (GVT)	Information System Research (ISR)	
13	2003	- Espinosa, Cummings, Wilson & Pearce (GVT)	Journal of Management Information Systems (JMIS)	National culture
14		- Massey, Montoya & Hung (GVT)	Management Information System Quarterly (MISQ)	
15	2001	- Kayworth & Leidner (GVT)	Journal of Management Information Systems (JMIS)	National culture
16	1998	- Pauleen & Yoong (GVT)	Journal of Information Technology (JoIT)	National culture
17		- Jarvenpaa, Knoll & Leidner (GVT)	Journal of Management Information Systems (JMIS)	

In addition, the authors also conducted a cross-cultural study from one country to another or across several countries in one single study in order to understand the influence of culture on GVT effectiveness. For example, Shachaf (2008) looked at Fortune 500 corporations in which she examined the impact of intercultural communication and cultural diversity on GVT based on 41 team members from nine different countries. She found that culture facilitates and enhances intercultural communication between the team members despite them being non-located or at a distant. Interestingly, while her findings showed a positive sign of cultural influence on GVTs, other studies showed a contradicting finding--one which showed that cultural is a barrier to achieve effective performance of GVTs. For instance, Kayworth and Leidner (2001) clearly pointed out that variety of work practices and cultural diversity and employee mobility significantly impacted performance in a negative way. They assert that it is difficult to achieve synergy with other team members in a different location with a different organizational culture in which these two aspects can lead to discontinuities in effort and cohesiveness among team members. Thus, culture in respect of organizational culture must be supportive of the new work structure as well as compatible with the cultural values that team members hold to.

By understanding cultural differences and its influence on virtual team effectiveness, Cousins, Robey and Ziguers (2007) studied a hybrid teams in which the ‘virtuality’ of the team members are moderate—between purely and co-located teams. In this study, they developed the four quadrants paradoxical framework, specifically between the collocated vs. virtual environment as follows—(1) remoteness-closeness, (2) cultural uniformity-cultural diversity, (3) rationality-emotionality, and (4) control-empowerment. By using these four pairs of paradoxical factors that are commonly experienced by virtual teams, the results showed how managers can prevail over the conflict by understanding the cognitive processes that they are confronted with cultural diversity. The cognitive process of the team members include varied questions for ways to solve virtual work issues such as how to achieve synergistic values and efforts between members of contradicting paradox, how to strike a balance between the two contradictory values, and how to reduce conflicts between the contradicting values.

It is also useful to understand the concept of in-group vs. out-group which can be contextualized in respect to the cultural values such as individualism vs. collectivism (Zhang, Lowry, Zhou and Fu, 2007). In their study, they wanted to understand whether or not cultural factors like collectivism-individualism, social presence and group diversity have an impact on group decision making by means of majority influence. According to Zhang et. al, they have clearly assert that culture is the principal influence in a typical multicultural teams since the composition of the members come from different parts of the world, and thus introduce new challenges of culture and working at a distance. They conducted a study by investigating the influence of culture, social presence and group diversity on group decision making. Their findings confirm that national culture of group minorities has a strong impact on majority influence. Yet surprisingly by using the computer-mediated communication, the distance between members can mitigate the impact of majority influence. In short, cultural impact is reduced when teams work at a distance. Hence this result supported what Shachaf (2008) argument about cultural influence which is lessened when people work in GVT.

To further explain this finding, it is useful to understand that for collectivistic people, the concept of ‘in-group’ includes memberships belonging to families and friendship. For those members who are out of the circles mentioned above, the concept of ‘out-group’ includes strangers and acquaintances. Triandis, Bontempo, Villareal, Asai, & Lucca (1988) assert that the relationship between members is normally stable and consistent over time for in-group membership. For individualistic people, they belong to many in-group memberships without discriminating between the in-group and out-group. It was noted that findings from Gomez, Kirkman, and Shapiro (2000) has confirmed that when a team member is perceived as in-group, the collectivists gave evaluation to the members more generously as compared to individualistics. Moreover, the collectivistic value highly contributions that lead to relationship maintenance while individualistic valued task contributions. Thus, in the virtual environment, it is expected that people who value relationship may have a more difficult time working together apart if the distance and time is the source of conflict. However, if such relationship building or rapport can be enhanced or facilitated by computer mediated communication (CMC), the people are less reluctant to effectively work together at anytime, anywhere and with anyone. On the opposite end, people who are task-oriented, they are more willing to work effectively regardless of any medium used as long as they can achieved their goals. Hence, using CMC will suffice because they could best utilize it without the need for relationship building in the early stage of team building.

When both studies of Paul et. al. (2004) and Paul et. al. (2004) examined a similar issue of individualism-collectivism cultural dimensions to understand its impact on conflict management in virtual teams, they found that collectivistic values facilitate teamwork and consequently motivate them as they demonstrated a collaborative conflict management style rather than a competitive one. In a virtual work environment, people are often looking for strategies to enhance their effectiveness, thus, one's cultural orientation becomes a crucial issue to evaluate in each of the team members. For example, a team member who has a strong individualism orientation would likely to demonstrate a competitive conflict management style, thus may challenge the team when working in a virtual environment. In support of this finding, we summarized the findings by suggesting such illustration-- for people who are grounded with collectivistic values; people are more willing to let go their interest over others because they put high emphasis on group interest rather than oneself. On the other end, for individualistic values, people are more selfish and thus when they work in a virtual environment, all they are concerned with is the accomplishment of the tasks given to them.

As a conclusion, all the results for illustrating the cultural impacts on GVTs seemed to point to two different directions. Majority of the findings suggest that culture do influence the team members ability to work in a virtual environment, and thus measures should be taken to help mitigate such impacts for enhance virtual team performance. On the other hand, culture also facilitates the virtual teams because without the face-to-face communication and collaboration, members who are not willing to face conflict in a confrontational manner can resort to technology as a medium for efficiencies. With such a pattern of understanding based on our meta- analytic review, it is suggested that in the context of virtual teams, many more studies need to be reviewed to confirm such effects, in particular in the management and organizational behavior research domains. If not, many more studies need to be taken up so that a consistent finding can be achieved and thus the gaps can be filled in terms of bridging the issue between technological and cultural effects.

4.2.4 Theme Four: Culture and Swift Trust within GVTs

Under this theme, our findings showed that only three (3) articles have discussed specifically on the issue of trust and swift trust in the context of GVTs (refer to Table 4.2). Evidently, over the duration of 10 years (1998-2008), there was a wide gap in the top IS literature, i.e. from 1998 when the topic was first introduced up till the recent study of David et. al.(2008). They examined 'trust' issue among 40 employees working under the distributed software development projects. They carried out a 3 year ethnographic study trying to capture the way teams engaged in virtual environment, and looking at the linkages between relationship management and trust formation within and among team members.

In this respect, the cultural perspective is illustrated based on the way the teams behave, think, and feel through the ethnographic approach. Using the ethnographic method, the authors were able to provide a deep understanding of the team culture, organizational culture as well as the influence of nationality on the trust formation. Hence, the finding provide an early understanding of the topic that we are interested to pursue as well as supports our argument about the importance of issue pertaining to culture and trust. It is crucial that the question of '*what makes a GVT effective*' needs to be clearly understood and explained from a cultural standpoint as what we aimed at achieving both empirically and conceptually as the main outcome of conducting qualitative meta analysis.

Table 4.2: Selected articles based on ‘culture’ and ‘trust/swift trust’ in top IS journals

NO	YEAR	AUTHOR	JOURNAL	ISSUE
1	2008	- David, Chand, Newell & Resende-Santos	Journal of Information Technology (JoIT)	Trust & Culture
2	2004	-Jarvenpaa, Shaw & Staples (GVT)	Information System Research (ISR)	Swift Trust & Culture
3	1998	-Jarvenpaa, Knoll & Leidner (GVT)	Journal of Management Information Systems (JMIS)	Swift Trust & Culture

Further support to the recent finding of David et. al (2008), we found that two articles were written on the issue of swift trust in light of cultural differences in GVTs. Swift trust is a new take of the concept trust. Thus, when the first article was published in JMIS by Javenpaa, Knoll and Leidner (1998) entitled “*Is anybody out there? Antecedents of trust in global virtual teams*” (Jarvenpaa et. al, 1998), it instantly became the lead publication that introduced the issue of cultural influence on swift trust. In this article, Javenpaa and colleagues have strongly argued that swift trust is a new form of trust that is sustainable yet can easily be disintegrated once teams adjourned from their ad-hoc projects. Also with the formation of swift trust, the earlier and quicker team members can create a more cohesive and conducive environment for teams, the more they will become effective in their performance. In addition, the lesser the environment is hostile, the easier for team members to quickly develop trust in which Javenpaa et. al argued as ‘swift trust.’

In the following six years, the same issue emerged again where this time around, Jarvenpaa and colleagues (2004) introduced another aspect of cultural influence on swift trust. With such findings, they further reinforced the idea of building swift trust and explained the challenges of doing so in the context of distributed and virtual environment. They realized that swift trust is and will be the type of trust that inherently shapes the novelty of virtual work environment. It was highly noted that in such GVT structure as embedded in the virtual organization, the development of teams differ essentially from the classic model of team building such as the one that was introduced by Tuckman (1965). For example, in this model, Tuckman suggested four different phases such as forming, storming, norming, and performing. Hence, if the virtual team members have to go through these common phases as part of their ‘acculturation’ and ‘indoctrination’ process, then the members are expected to experience a different process all together.

With such meaningful and indispensable discussion obtained from the three articles, we found that the issue seems to explain a realistic way of looking at virtual work with the emergence of VO. Culture is no longer an exception to MNCs or any organization for that matter, so is developing trust among team members. Trust is a delicate issue that needs to be managed and resolved among members who belong to different cultural backgrounds. To reinstate, the studies abovementioned have clearly pointed out the way one’s cultural background can influence, for example, how a person learns how to trust, who to trust, when to trust, and what to trust. Moreover, with the temporal or ad-hoc element of GVT, it is even more complicated for teams to be bonded socially as well as professionally at work place when they have to quickly move to the ‘performing’ stage and bypass stages like forming, storming and norming. Those stages are pivotal in trust building process and different cultural values either influence or shape different trusting behaviors. In conclusion, with the scarce findings and the

existing need for an explanation and rich description of how and why cultural influence swift trust formation within GVTs, we suggest that the challenges will persist because differences occur particularly in the following situations:

- the time taken to establish cohesiveness and trust among members are constraint by time and spatial barriers;
- nature of work is largely dependent on technological communication and collaboration;
- team operate in a remote or non-collocated work environment that are dispersed across global boundaries;
- the role of leaders and members take on a new height where teams need to be influenced and motivated differently due to cultural differences;
- conflicts may be more intense due to combination of factors such as time, culture, and geographical distance, hence became more challenging to resolve.

5.0 Discussion and Conclusion

In this section, we discuss our findings based on the review of several bodies of literature encompassing multidisciplinary fields like management, organizational behavior, cross-cultural management etc. Together with our findings, we suggest possible future directions for examining cultural effects on swift trust in the form of four propositions that are culturally attuned. While the findings of our qualitative meta-analytic review provide a good foundation regarding the encompassing phenomenon of swift trust formation within GVTs through a cultural lens, the following sub-sections present what further research needs to be carried given the void that we need to fill in our understanding of the topic. The qualitative meta-analysis assists in answering the questions of ‘what do we know’ and ‘what do we not know,’ in order to help us tackle the question ‘what we should aim to do,’ as elaborated in the following sub-section and as highlighted in the cultural topology (refer to Table 5.0). We summarize this section by presenting a concluding remark of the current GVT phenomenon, follows by further research directions given four possible research questions.

5.1 The Effects of Culture on the Formation of Swift Trust

Studies have shown that swift trust is a prerequisite to effective performance when people work together (Adler, 2007; Costa, 2003; Laat, 2005; Greenberg, Greenberg & Antonucci, 2007; Remidez, Stam & Laffey, 2007, Young, 2006). According to Laat (2005), the conditions for and challenges to establishing trust are different, depending on factors like social setting, identity, age, race and gender (Laat, 2005). When we talk about trust in the distributed environment, the concept takes on a new meaning; as Jarvenpaa suggested that ‘swift trust’ is a more desired form of trust in the virtual work environment. Swift trust is an outcome of ad-hoc or temporary teams that collaborate on important and complex tasks (Meyerson et al., 1996). Trust in this form cannot be developed at a normal pace since the length of time the team is together is usually limited. According to Adler (2007), swift trust normally takes place at the inception stage, when the team is first formed. Yet it is challenging to do so because the team lacks a shared historical background, is composed of culturally diverse members, and operates on complex, non-routine and interdependent projects. However, Adler further suggests that swift trust will enable members to initially look for external sources and is perhaps a conducive condition for working together at a distance if the project needs to be completed in a relatively short time (Greenberg, Greenberg & Antonucci, 2007)

Therefore, in order to develop swift trust, time is of the essence. GVTs who desire to operate on an ad-hoc basis on projects that need to be completed quickly need to formulate means or strategies for developing trust more rapidly than in face-to-face operations. Yet not all cultures can develop trust in a quick manner, unless they have a strong 'in-group' relationship. GVTs are assembled in a totally different manner from the more common face-to-face structure in MNCs. With a distributed environment, the team not only needs to deal with the use of various technologies, but they also need to acculturate and adapt to the diversity of cultural values that exist among team members. The two combinations—technology and culture—sometimes create more intense challenges to effective teamwork at a distance. If developing swift trust in distributed teams is challenging, the formation of trust among team members with different cultural backgrounds becomes even more so because social and personal expectations, sources of trust, and credibility are established and communicated in different ways (Zuckerman & Higgins, 2002). The key question, therefore, is "How is swift trust affected by cultural values?"

In this study, we examine whether or not culture does impact the formation of swift trust in a globally distributed collaboration environment, specifically GVTs, by reviewing what has been studied in the field of IS over the past 15 years. Studies have shown that teams often face many challenges in forming trust because they have different expectations, communication styles, and preferences for collaboration as well as different motivations to trust the partners with whom they work (Adler, 2007; Greenberg, Greenberg & Antonucci, 2007; Jeffries & Reed, 2000).

Jarvenpaa and Leidner's (1998) findings, however, showed that culture is an insignificant factor in predicting the perceived level of trust in GVTs. They allege that in an electronic communication environment, culture is less significant whereas our paper argues the opposite view (Amant, 2002, Cogburn & Levinson, 2003, Zakaria & Mohd. Yusof, 2005; Zakaria, 2006). Hall (1976) argued that people who demonstrate high context communication behaviors rely primarily on the non-verbal aspects of messages and the contextual value of information. In this case, the relationship building-orientation takes precedence over task-orientation. Questions such as who, what, when, why and how need to be critically examined in order to build a trusting relationship among team members. In the new work structure that relies on non-collocated teams with diverse cultural backgrounds, trust is becoming one of the key ingredients that contribute to a team's performance. Developing trust in a relatively quick manner is strongly influenced by the different cultural values that each member brings to the team (refer to Table 5.0).

5.1.2 Propositions -- High Context Lens

One of the most important of the cultural values to consider is the concept of in-group vs. out-group. Essentially, this concept posits that family members, close friends and colleagues, all known as the in-group, are the easiest for high context members to build trust with, as compared to strangers—out-group members (Triandis, et al, 1988). It is very important to note that the concept of 'in-group' suggests that one way to reduce a person's anxiety and uncertainties about someone he or she does not know is to give him more information about the unknown person. The more you know about a person, the less anxious you will be about them (Gudykunst, 1996). With little or no information about another person, it is hard to anticipate or predict the outcome of a relationship or shared goal. In this regard, strangers (members of the out-group) create more anxieties than people who are familiar or close to a person (members of the in-group). As Kanter (1972) has long observed, similar observations can be made about the issue of trust. For

example, in the absence of other information, people prefer someone who is similar to themselves (Stafsudd, 2006) because that similarity creates the impression of being in-group.

Based on the discussion above, it is suggested that homogeneity is a highly acceptable method of inducing trust in a large organizational setting composed of high-context individuals. On the other hand, for small organizations, heterogeneity is far more acceptable because it is much easier, faster, and more convenient to get to know people at a personal level than it would be in a large organization (Stafsud, 2006). Therefore we suggest that:

Proposition 1: High context people are likely to develop swift trust if the members all belong to each others' *in-group* because they will feel more familiar as they get to know the person at an interpersonal level (e.g. family members, spouse, close friends, and colleagues).

Proposition 2: High context people are reluctant to develop swift trust with members of their *out-group*—people who they do not know—because unknown people create anxieties and uncertainties (e.g. strangers, acquaintances).

5.1.3 Propositions – Low Context Lens

Low context communication behaviors on the other hand focus on task orientation rather than relationship building. They rely on the explicit verbal aspects of communication and do not make a distinction between in-group and out-group. What matters to low context individuals are the instrumental goals, which they value more highly than the affective goals (e.g. relationships) when developing trust in a GVT environment (Zakaria, Stanton & Sarkar-Barney, 2003). Kim, Park and Suzuki (1990) argue that individualistic cultures value task inputs rather than working on relationship building and maintenance.

In other words, individualistic or low context people are less concerned with affective cues. Instead they are more concerned with effectiveness and efficiency in terms of tangible outcomes like performance-based success of the GVT. Hofstede (1980) strongly believed that individualistic people are neither reliant on team memberships nor dependent on harmonious and cohesive situations. Their goals are very objective, focusing on what and how many tasks they need accomplish. McClelland and Boyatzis (1984) established that individualistic managers do not strive for personal affiliations, which are necessary ingredients in, or characteristic of, a collectivistic culture. What is more important for individualistic managers are their individual achievement and personal aspiration. Thus, swift trust that emphasizes task completion and not relationship building becomes a more desirable outcome for GVTs that ascribe to the individualistic culture. With such empirical support, we suggest that:

Proposition 3: Low context people are likely to develop swift trust based on *instrumental objectives* which are highly dependent on performance or task orientation.

Proposition 4: Low context people are less keen to develop swift trust based on *affective objectives* because they involve a relationship-orientation which takes a longer time to develop and which is less important to the low context mindset.

Table 5.0. Impact of cultural values on development of swift trust within GVTs

CULTURAL VALUES			
		High Context Culture	Low Context Culture
SWIFT TRUST	High Trust	People are likely to develop swift trust if the members are <i>in-group</i> because they are familiar with them and know them personally (e.g. family members, spouse, close friends, and colleagues).	People are likely to develop swift trust based on <i>instrumental objectives</i> which are task-oriented and highly dependent on performance and individual decisions.
	Low Trust	People are reluctant to develop swift trust with the <i>out-group</i> —strangers, casual acquaintances—because people they do not know create anxieties and uncertainties (e.g. strangers, acquaintances).	People are less keen to develop swift trust based on <i>affective objectives</i> because they involve a relationship-orientation which takes a longer time to develop.

5.2 Concluding Remark

The use of GVTs in today's distributed work structure is an increasingly prevalent organizational phenomenon. Yet their effectiveness has not yet been thoroughly understood by empirical research. Our findings clearly show the lack of studies which explore, explain and predict the nature of GVT work given the cultural influences involved. However, this qualitative meta-analysis only reviewed the top-ranked IS journals and did not use any scholarly databases to systematically find articles on the topic of interest. Our aim was to find out what has been understood thus far in the IS field in regard to this topic, looked at through a cultural lens. The lack of cultural studies has been clearly noted by other researchers (Shachaf, 2008; Kanawattanachai & Yoo, 2007; Cousins, Daniel, Ziguers, 2007; Jarvenpaa, 2005; Jackson, 1999) but we have yet to understand to what extent it is insufficient. We also note that the study of GVTs is particularly important in the IS field because the work structure is heavily dependent on information communication technology. Hence, our research goal was to focus only on the top IS journals which were strongly related to the topic, and to gauge the extent to which such topics have been examined by IS scholars.

Building virtual trust is difficult in itself; how much more so to develop swift trust in a short time frame and with strangers. The barriers are deeply-rooted in a person's cultural background (Fukuyama, 1995), which means that the formation of trust takes two key forms. For the individualistic culture, it is 'Can you work with me?' and for the collectivistic culture, it is 'Can we work together?' These have obvious implications for MNCs when assembling global virtual teams, and cultural values thus become a critical factor for organizations to consider because individuals from different cultures have different expectations, purposes, and objectives. In essence, cultural values become one of the antecedents to the development of swift trust within global virtual teams.

GVTs need to complete their tasks rapidly, efficiently, and effectively. Without a doubt, managing GVTs is becoming incredibly challenging because members that come from different cultural backgrounds often fail to develop a trusting relationship in the time they need to complete their projects or assignments. GVTs as a distributed work structure provide many ways of establishing cross-border collaboration to enhance organizational performance in multinational corporations. Trusting others during cross-border collaboration provides a new challenge for teams due to their virtual and global working environments. Trust takes on a new perspective because teams need to develop ‘swift trust’ in order to optimize cross-organizational team performance and to provide management with reduced costs in terms of time, culture, and geographical distance. Our study explored the question, ‘How do cultural values impact the ability to develop swift trust for global virtual teams?’ We argue that team members frequently encounter challenges in developing swift trust because their diverse cultural backgrounds give rise to different, sometimes conflicting, approaches to trust formation.

5.3 Future Research Directions

Our study uses several cross-cultural theoretical lenses as the basis for our exploration of the impact of culture on swift trust formation within GVTs. We propose that swift trust formation is more challenging for individuals from a high context culture who value relationship-building as a prerequisite for trust. However, based on cross-cultural theory, trust formation is easier for high context cultures if the people involved belong to their in-group (e.g. family members, close friends, spouses, and colleagues) than if the people are total strangers. On the opposite end of the spectrum, individuals from low context cultures that ascribe to individualism are more willing to develop swift trust if the goal is instrumental and the focus is on task-orientation. Thus, we suggest four questions for shaping the direction of future work in understanding swift trust formation in virtual cross-border collaboration from a cultural perspective which as follows:

- Why do team members need to develop swift trust in virtual cross-border collaboration?
- What are the cultural antecedents to, and consequences of, the success or failure of swift trust development on the effective performance of global virtual teams?
- In what ways do individuals from high context cultures (dependent on non-verbal cues) and those from low context cultures (dependent on verbal cues) learn to trust?
- How do high context team members engage in effective virtual cross-border collaboration if they require so much more time to establish trust compared to low context team members?

Based on our systematic qualitative meta-analysis review, we can to some extent conclude, based on the top IS journals, that there is a severe lack of studies that focus on cultural understanding of swift trust formation within GVTs. As argued by several researchers, the topic of GVTs bridges the gap between the two distinct fields of IS and management (Shachaf, 2008; Zakaria, Amelinckx and Wilemon, 2004). This combined phenomenon hence offers new challenges and new ways of managing team effectiveness which has so far been hardly recognized, much less understood, in the field of IS, as evident from our meta analytic review. Therefore, as a recommendation for future study, similar reviews need to be done with their scope expanded to include top management journals as well as scholarly databases to obtain

articles across a wider spectrum of interdisciplinary fields such as management, cross-cultural management, sociology, psychology, organizational behavior, and many others that have strong connections to trust formation, cultural values and the use of GVTs.

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Appendix

NO.	YEAR	AUTHOR	JOURNAL	SAMPLE/RESPONDENTS	THEMES	THEORY	METHODOLOGY	DESCRIPTIONS/KEYWORDS
1	2010	Sarker, Saonee., Sarker, Suprateek; and Jana, Debasish.	EJIS	Globally Distributed Systems Development (GSD) -Professionals offshore Indian workers	VTs	Work-life conflict (WLC)	Survey	Work arrangement on work-life conflict and valence
2		Chih-Jou, Chen and Shiu-Wan, Hung	IM	Professional virtual communities (PVCs) -323 members of two communities	VTs	Social Cognitive Theory (SCT)	Online Survey Structured Equation Modelling	Knowledge sharing, contributing, collecting
3		Schweitzer, Linda and Duxbury, Linda	ISJ	Virtual Teams -30 VTs working in a Canadian technology-based organization.	VTs	No Theory	Survey	Virtual work teams, Business communication, email messages
4		Thomas, Dominic M. and Bostrom, Robert P.	MISQ	Team leaders sense the need for technology adaptation - IS Development Team Leaders	VTs	Adaptive Structuration Theory	Interview – Critical Incident Technique	Virtual teams, leadership, project management
5		Alnuaim, Omar A., Robert, Lionel P. Jr, and Likoebe M. Maruping	JMIS	Virtual Teams -140 students randomly assigned to 32 teams performing a brainstorming task using group systems software.	VTs	Theory of moral disengagement	Laboratory study	CMC, electronic brainstorming, idea generation, social loafing, team performance, virtual collaboration
6	2009	Cummings, Jonathon N., Espinosa, J. Alberto, and Pickering, Cynthia K.	ISR	Globally Distributed Projects Team -675 project members (representing 5,674 pairs of members) across 108 projects in a multinational semiconductor firm	VTs	Model of Coordination Delay	Survey	computer-mediated communication and collaboration, virtual teams
7		Sarker, Saonee and Sarker, Suprateek	ISR	Distributed Information Systems Development Teams - Distributed ISD experience in TECHCOM	VTs	Grounded Theory: Sense making	Interpretive Case Study	Agility, distributed IS development Insourcing, offshoring
		Bjørn, Pernille and Ngwenyama, Ojelanki	ISJ	Globally distributed virtual teams -two GVTs	VTs	Grounded Theory: Sense-making	Interpretive Case Study, Interview	Virtual teams, communication breakdown, translucence, shared meaning, social context
9		Dubé, Line and Robey, Daniel	ISJ	Distributed Teams - 42 leaders and members of virtual teams	VTs and Trust	Grounded Theory	Interview	Virtual teamwork, distributed teams, paradox, trust
10		Bostrom, Robert P., Gupta, Saurabh and Thomas, Dominic	JMIS	Virtual Teams	VTs	Adaptive Structuration Theory	Conceptual paper	conceptual model, meta-theory, technology-mediated learning, virtual teams
11		Robert, Lionel P. Jr, Dennis, Alan R., and Hung, Yu-Ting Caisy	JMIS	Virtual Teams	VTs and Trust	Model of trust formation	Empirical study	Cognitive trust, CMC, initial trust, knowledge-based trust, presumptive trust, swift trust, vignettes, virtual team.
12	2008	David, Gary C., Chand, Donald, Newell, Sue, and Resende-Santos, Joao	JoIT	Distributed software development GLOBALIS (IT Solution Centres) -40 employees of GLOBAL IS	GVTs, Trust, Culture	World-Systems Theory	3 years Ethnographic study	Computer supported cooperative Work, workplace studies, Global Collaboration, trust, relationship management
13		Wakefield, Robin L., Leidner, Dorothy E., and Garrison, Gary	ISR	Large U.S. telecommunications corporation and five Korean firms involved in construction, finance, business consulting, sales and distribution. -159 virtual team members	VTs	Leadership Theory	Survey	Team conflict, virtual leadership and Virtual teams

NO.	YEAR	AUTHOR	JOURNAL	SAMPLE/RESPONDENTS	THEMES	THEORY	METHODOLOGY	DESCRIPTIONS/KEYWORDS
14		Shachaf, Pnina	IM	Ad Hoc Global Virtual Teams from Fortune 500 corporations -41 team members from nine countries	GVTs and Culture	Grounded Theory	Exploratory study - Interviews	Intercultural communication; Information and communication technology, Cultural diversity; Channel selection, GVT
15		Staples, D. Sandy and Webster, Jane	ISJ	985 individual members of teams (large global high-tech company and online panel of distributed workers)	VTs and Trust	Social Exchange theory	Survey	Distributed teams, hybrid teams, trust, team effectiveness, knowledge, transfer, task interdependence
16		Dabbish, Laura and Kraut, Robert	ISR	36 Initiated Target Pairs (72 individuals) were recruited from local universities	VTs	No Theory	Lab experiments, Survey	Computer-mediated communication and collaboration; virtual teams; laboratory experiments; attention; interruption; awareness
17		Riemer, Kai and Klein, Stefan	JoIT	Virtual Teams	VTs and Culture	Social capital theory	Conceptual Paper	virtual organisation; social capital; V-form organisation; virtual teams; collaboration; knowledge sharing
18	2007	O'Leary, Michael B., and Cummings, Jonathon N.	MISQ	Geographically Dispersed Teams	VTs	No Theory	Conceptual Paper	Geographically dispersed teams, virtual teams, dispersion, distance, configuration, technology use
19		Kanawattanachai, Prasert and Yoo, Youngjin	MISQ	Virtual Teams -38 virtual teams of MBA students performing a complex web-based business simulation game over an 8-week period	VTs and Trust	Theory of Social Structures and Social Learning Theory	Empirical study	Virtual team, transactive memory, trust, repeated measures, temporality
20		Thatcher, Jason B., Loughry, Misty L., Lim, Jaeeoo and McKnight, D. Harrison	IM	Virtual Teams - virtual teams during a 16-week Period, three sections of a senior-level MIS course at a large public university in the Southeastern United States.	VTs and Trust	Social Information Theory	Empirical study	Computer anxiety; Computer self-efficacy; Internet anxiety, Personal innovativeness in information technology, Perceived resources; Social support; Trust in technology; Virtual teams
21		Munkvold, Bjørn E. and Zigers, Ilze	IM	Virtual Teams - Virtual teams working on a systems development task	VTs	Time–interaction–performance theory	Empirical study	Virtual teams; Ad hoc teams; Systems development teams; Collaboration technology
22		Hanisch, Jo and Corbitt, Brian	EJIS	Software developers for Large software development project - Users located in the software international - house based in New Zealand	GVTs and Culture	Symbolic Convergence Theory	Case Study	Global software development; requirements engineering; global virtual teams
23		Cousins, Karlene C., Robey, Daniel, and Zigers, Ilze	EJIS	Three hybrid teams organization	VTs and Culture	Theory of Strategic Contradictions	Qualitative study Interview	Virtual teams; hybrid teams; dualities
24		Zhang, Dongsong, Lowry, Paul B., Zhou, Lina, and Fu, Xiaolan	JMIS	Cross-Culture Teams - A total of 183 groups participated in a large-scale empirical experiment at multiple sites	VTs and Culture	Hofstede Culture Model, Social Identity Theory, Social Presence Theory	Empirical study, Experiment	CMC, computer-mediated communication, culture, group, decision making, group decision systems, group diversity, majority influence, social presence, virtual teams.
25	2006	Stewart, Katherine J. and Gosain, Sanjay	MISQ	Open Source Software Developers Teams	VTs and Trust	No Theory	Survey	Open source software, trust, ideology, communication, virtual teams

NO.	Year	Author	JOURNAL	Sample/RESPONDENTS	THEMES	Theory	Methodology	Descriptions/keywords
26		Heninger, William G., Dennis, Alan R., and Hilmer, Kelly M.	ISR	Virtual Teams using GSS - 102 Undergraduate business students	VTs	Concept of 'Dual Task Interference'	Experiment using a Simulator – similar to GSS tool (Instant Messaging), Survey	Group support systems; synchronous text discussion; decision making; collaboration technology; dual-task interference; individual cognition; information exchange; information processing; virtual teams; cognitive interference
27		Fuller, Mark A., Hardin, Andrew M., and Davison, Robert M.	JMIS	Global Virtual Teams -52 virtual teams comprising 318 students from the United States, Great Britain, and Hong Kong	GVTs and Culture	Efficacy Theory and Social Cognitive Theory	Over a two-year Period, field study data from multiple samples	Collective efficacy, global virtual teams, virtual team efficacy, virtual teams
28	2006	Kankanhalli, Atreyi, Tan, Bernard C.Y., and Wei, Kwok-Kee	JMIS	Global Virtual Teams	GVTs and Culture	Attribution Theory, Social Identity Theory	Qualitative Study Using interviews, observations, communication logs, and documents	Communication technology, conflict resolution, conflict types, diversity, global virtual teams, task characteristics, team conflict, team performance.
29		Paul, David L.	JMIS	Virtual teams in the context of telemedicine projects	VTs	Knowledge Management, Grounded Theory	Multiple Case Studies, Interview	Collaboration, knowledge management, telemedicine, virtual teams.
30	2005	Chidambaram, Laku and Tung, Lai Lai	ISR	Technology Supported Groups	VTs	Social Impact Theory	Empirical study -Lab experiment	Distributed group decision making; group size; social loafing; integrative complexity; collaborative technologies
31		Majchrzak, Ann, Malhotra, Arvind, and John, Richard	ISR	Distributed Teams -263 individuals working in structurally diverse distributed teams	VTs	Theory of Cognitive Affective model of communication	Survey	Knowledge management; collaboration; virtual teams; distributed teams; knowledge sharing; group support systems
32		Chudoba, Katherine M., Lu, Mei , and Watson-Manheim, Mary B.	ISJ	Virtual Teams at large multinational Corporations - INTEL	VTs and Culture	No Theory	Web-based Survey	Collaboration, discontinuities, distributed teams, Intel Corporation, virtual teaming, virtuality
33	2004	Paul, David L. and McDaniel, Reuben R. Jr	MISQ	Virtual Teams -10 operational telemedicine projects in healthcare delivery systems (74 professionals)	VTs and Trust	Facet Theory	Comparative Case Studies, Interview	Interpersonal trust, collaboration, virtual teams, telemedicine
34		Breu, Karin, and Hemingway, Christopher J.	JoIT	Virtual Teams - Temporary virtual team members	VTs	Boundary Theory	Exploratory case study	ICT; knowledge sharing; temporary teams; virtual teams; virtualisation
35		Jarvenpaa, Sirkka L., Shaw, Thomas R., and Staples, D. Sandy	ISR	Global Virtual Teams	GVTs, Trust, Culture	Initial Trust Formation, Role of Trust in Org. Setting, Punctuated Equilibrium Model	Longitudinal study	Global virtual teams; trust; trust development; strength of situational structure; moderation effects; team communication

NO.	YEAR	AUTHOR	JOURNAL	SAMPLE/RESPONDENTS	THEMES	THEORY	METHODOLOGY	DESCRIPTIONS/KEYWORDS
36		Seetharaman, Priya, Samaraha , Imad and Mykytyna, Peter P.	IM	Homogeneous and Heterogeneous Virtual Teams - Subjects from the USA and India	VTs and Culture	No Theory	Laboratory Experiment and Online survey	Virtual teams; Collaboration; Group decision support systems; Diversity of team members; Group heterogeneity
37		Sarker, Suprateek and Sahay, Sundeep	EJIS	Virtual Teams in information systems development (ISD) projects located in the US & Norway	VTs	Grounded Theory	Virtual Ethnography	Time, Virtual reality , R & D , information systems
38		Paul, Souren, Samarah, Imad M., Seetharaman, Priya, and Mykytyn, Peter P. Jr.	JMIS	Virtual Teams	VTs and Culture	No Theory	Experimental lab study	Collaborative conflict management, collectivism, group support systems, individualism, perceived decision quality, perceived participation in decision-making, satisfaction with decision process, team diversity, virtual team.
39		Brown, Houghton G., Poole, Marshall S., and Rodgers Thomas L.	JMIS	Virtual Teams	VTs and Trust	Interpersonal Circumplex Model (ICM)	Conceptual paper	Collaboration, computer-mediated collaboration, interpersonal traits, technology acceptance, telemedicine, trust, virtual collaboration, virtual teams, virtual trust.
40	2003	Griffith, Terri L., Sawyer, John E., and Neale, Margaret A.	MISQ	Virtual teams	VTs	Knowledge Management	Conceptual paper	Group dynamics, organizational learning, knowledge acquisition, knowledge utilization, distributed work arrangements
41		Rafaeli, Sheizaf and Ravid, Gilad	ISJ	Virtual Teams in 'Beer Game' role-playing simulation game -76 teams of four players each competed to achieve best net team profit	VTs	No Theory	Experimental study	Information sharing, internet, electronic mail, supply chain, team performance, organizational learning
42	2003	Espinosa, Alberto J., Cummings, Jonathan N., Wilson, Jeanne M., and Pearce, Brandi M.	JMIS	Teams across multiple firms (software development, product development, financial services, and high technology)	GVTs and Culture	No theory	Empirical field Research, Multiple Case Studies	Cross-functional teams, distributed teams, global teams, inter-organizational teams multiple boundaries, organizational forms, research methods, virtual teams, work groups.
43		Pauleen, David J.	JMIS	Virtual Teams -7 virtual team leaders from a variety of New Zealand organizations took part in the study.	VTs and Trust	Grounded Theory	Empirical study Interview	Action learning, grounded theory, information technology in team building, leadership, relationship building, trust, virtual teams.
44		Massey, Anne P., Montoya-Weiss, Mitzi M., and Hung, Yu-Ting	JMIS	Asynchronously communicating global virtual project teams (GVPT) -consisting of 35 virtual project teams comprised of 175 members residing in the United States and Japan	GVTs and Culture	Time, Interaction, and Performance (TIP) theory	experiment consisting of project teams comprised	Cluster analysis, computer-mediated communication, temporal coordination, virtual teams.
45		Piccoli, G., & Ives, B.	MISQ	42 Empirical studies over an eleven-year period from 1997 through 2007.	VTs and Trust	Theory of Swift Trust	Empirical Study	Virtual teams, trust, behaviour control, control theory, psychological contract, teamwork

NO.	Year	Author	JOURNAL	Sample/RESPONDENTS	THEMES	Theory	Methodology	Descriptions/keywords
46	2002	Larsen, Kai R T., and Mc Inerney, Claire	IM	Simulated virtual teams - Groups in four geographically dispersed universities cooperated in the project	VTs and Trust	Grounded Theory	Case Study, Observations, and Self-administered survey	Virtual organization, virtual teams, knowledge workers, information studies, information management education, Inter organizational work, virtuality, trust, team building
47	2001	Malhotra, Arvind; Majchrzak, Ann; Carman, Robert; Lott, Vern	MISQ	Creative Collaborative Teams	VTs	No Theory	Case Study of Boeing-Rocketdyne, Interview	Virtual teams, supply-chain collaboration, innovation, collaboration technology.
48		Pauleen, David J., and Yoong, Pak	JoIT	New Zealand-based virtual team facilitators working with boundary-spanning virtual teams.	GVTs and Culture	Grounded Theory	Semi-structured Interview, Documentations, Emails messages	ICT, GVTs, Virtual Teams, Organizational boundary
49		Lurey, Jeremy S. and Raisinghani, Mahesh S.	IM	67 individuals who comprised a total of 12 virtual teams from these companies: Eight companies in the high technology, agriculture, and professional services industries.	VTs	No Theory	Empirical study Survey	Virtual teams; Internal group dynamics; External support mechanisms; Team effectiveness
50		Kayworth, Timothy R., and Leidner, Dorothy E.	JMIS	Global Virtual Teams - 13 culturally diverse global teams from locations in Europe, Mexico, and the United States	GVTs and Culture	Leadership Theory	Empirical study Survey	Collaboration technology, CMC systems, computer-supported cooperative work, global virtual teams, virtual teams.
51	1999	Furst, Stacie., Blackburn Richard., and Rosen, Benson	ISJ	Virtual Teams	VTs	Model of group effectiveness	Conceptual paper	Team effectiveness, virtual teams
52		Warkentin, Merrill and Beranek, Peggy M.	ISJ	Virtual teams	VTs	Social Presence Theory	Experiment – Given training	Computer-mediated communications systems (CMCS), media richness, relational links, social presence theory, teamwork training, virtual teamwork
53		Vickery, Caisson M., Clark, Thomas D., and Carlson, John R.	ISJ	US Air Force systems acquisition teams	VTs	No Theory	Empirical - hierarchical regression analysis	Ad hoc workgroups, IT-facilitated workgroups, virtual organization, virtual positions, virtual teams
54		Jackson, Paul J.	ISJ	Virtual Teams	VTs and Culture	No Theory	Conceptual paper	Virtual teams, organizational change, social and political processes
55	1998	Jarvenpaa, Sirkka L., Knoll, Kathleen and Leidner, Dorothy E.	JMIS	Global Virtual Teams -75 teams, consisting of four to six members residing in different countries, for 8 weeks.	GVTs, Trust, Culture	No Theory	Electronic Survey	Antecedents of trust, global teams, global virtual teams, swift trust, transnational teams, trust, virtual organizations, v.teams.